

Presented by Maj. Genl: W. C.  
Oct: 1921. to Black.  
U.S. I of India S. 318.

LETTERS ON CAVALRY

BY THE SAME AUTHOR.

**LETTERS ON ARTILLERY.** Translated by Lieut.-Col.  
N. L. WALFORD, R.A. Second Edition. Crown 8vo, cloth,  
with six folding plates. 7s. 6d.

"Under an assumed controversial form, these *Letters* are distinctly authoritative—as indeed might be expected from such a master of the art; and under the heads of apparently discursive dissertations, they collect all the decisions afforded by hard experience as to the value of current, and in many cases rather conflicting, theories concerning the true part of artillery in war."—*Saturday Review*.

*Uniform in Size.*

**LETTERS ON INFANTRY.** Translated by Lieut.-Col.  
N. L. WALFORD, R.A. Second Edition. 6s.

---

LONDON: EDWARD STANFORD  
26 & 27 COCKSPUR STREET, CHARING CROSS, S.W.



*U.S. of India. S. 318.*

LETTERS ON CAVALRY

REFERENCE BOOK

BY

PRINCE KRAFT ZU HOHENLOHE INGELFINGEN

TRANSLATED BY

LIEUT.-COL. N. L. WALFORD, R.A.

WITH THREE FOLDING PLATES

*SECOND EDITION*

OLD COLLECTION

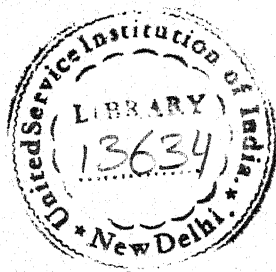
Not to be taken out

LONDON: EDWARD STANFORD

26 & 27 COCKSPUR STREET, CHARING CROSS, S.W.

1893

c  
357  
H72L



## P R E F A C E

THE *Letters on Cavalry* of Prince Kraft of Hohenlohe Ingelfingen, of which the following volume contains a translation, formed originally the first part of his papers on the Three Arms ; they have been included in the present edition as being necessary in order to form a complete tactical series, but the order of succession has been changed as, since no new regulations have appeared in Germany with regard to the movements of Cavalry, it was considered that there was less need to present them at the earliest possible moment, there being no opportunity of comparing them with recent official opinions.

These letters, like the others, have been reprinted from the *Proceedings of the Royal Artillery Institution*, and I beg to return my most sincere thanks to the Committee for their kind permission to use the maps which accompanied that issue.

N. L. W.

LONDON, 29th July 1889.

001

257  
~~#24~~

# CONTENTS

## LETTER I

### GENERAL REMARKS ON CAVALRY

Discussion as to the present value of cavalry—Action of cavalry in war has changed—Reasons for this as regards the war of 1870—Cavalry is an auxiliary arm to the infantry—Proportion of cavalry to the other arms . . . . . Pages 1-10

## LETTER II

### THE SHARE OF THE CAVALRY IN THE SUCCESSES OF 1870-71— RECONNAISSANCE

Reserve Cavalry—Value of a name—Development of forward action of cavalry in 1870—Dieulouard—Wörth—14th and 15th of August 1870 . . . . . 11-21

## LETTER III

### THE PART PLAYED BY THE CAVALRY IN BATTLE

The cavalry at Vionville—Mars la Tour—Charge of Bredow's Brigade—Cavalry in second line—1st Dragoons of the Guard—Cavalry fight to west of Mars la Tour—Criticisms—The 6th Cavalry Division—Result . . . . . 22-34

## LETTER IV

## HOW OUR CAVALRY COVERED THE INFANTRY

The 17th August—The 18th August—Gravelotte—19th August—  
Advance towards Châlons—Cavalry of the Guard and Saxons—  
Beaumont—Sedan—Montmédy—Advance on Paris—Siege of  
Paris—Perfection not possible . . . . . Pages 35-48

## LETTER V

## HOW OUR CAVALRY LIGHTENED THE TASK OF THE INFANTRY

Effect on infantry of a skilful use of cavalry—And of a cavalry screen  
—Advanced - guards— Outposts— Cantonments— The 28th of  
August—But no rest for the enemy—The 29th of August—Wear  
and tear of troops diminished by use of cavalry—Recapitulation  
of the services of the cavalry in 1870 . . . . . 49-57

## LETTER VI

THE DIMINUTION, OWING TO THE EFFECT OF FIRE, OF THE PART  
PLAYED BY CAVALRY IN BATTLE—HISTORICAL EXAMPLES

Battle of Custoza—Pulz and Bujanowics—The Sicilian Lancers—  
Königgrätz—Swip Wald—The great cavalry fights—Gitschin—  
Charges of French cavalry at Wörth and Vionville—And at Sedan  
—The "Calvary" of Illy—Cavalry should advance from the flank  
of their own line . . . . . 58-69

## LETTER VII

THE PART WHICH CAVALRY WILL, IN FUTURE, PLAY IN THE  
ACTUAL BATTLE

Difficulties will tend to increase—Cavalry must be in rear—Hard  
to judge as to the moment for action—Must ride two miles before  
charging—Use of cover for cavalry—Cavalry must endeavour to  
gain the enemy's flank—Effect of the confusion of battle—Cavalry  
must not go too wide to a flank—Examples of the effect of ex-

citement in action—Cavalry in latter part of campaign of 1870-71  
 —Cavalry yet more useful in a defensive battle—No experience in  
 1870—Austrian cavalry at Königgrätz—Inspection of cavalry  
 Pages 70-86

## LETTER VIII

## A GLANCE AT THE FUTURE DUTIES OF CAVALRY

Diminution of the effect of cavalry owing to long-range firearms—  
 Königgrätz—Time for grand cavalry successes past—No instance  
 in 1870 where pursuit was required—The indirect pursuit—  
 Cavalry cannot now pursue unless certain of being supported by  
 infantry—*Francs-tireurs*, etc.—Information from cavalry—Cir-  
 cumstances in 1870 abnormal—French cavalry held back—Future  
 action of contending masses of cavalry . . . . 87-97

## LETTER IX

## OUGHT CAVALRY RAIDS TO HAVE BEEN MADE IN 1870-71?

Definition of "Raid"—A raid must have a distinct object—When was  
 a raid possible—Orleans—On Bourges—On Tours—Le Mans—  
 Large masses of cavalry not so mobile as small—Must have  
 encumbrances, artillery, hospitals, train—Ammunition—Rouen  
 —Amiens—No cavalry to spare—Wise not to attempt raids—  
 Action of small bodies more useful . . . . 98-110

## LETTER X

ON RAIDS WHICH MAY BE MADE IN THE FUTURE WITH THE  
 OBJECT OF DISTURBING THE ENEMY'S MOBILISATION

Many faults committed in 1870—But, if raids had been desirable,  
 they would have been made—Character of American War of  
 Secession—French might have made raids—From Dijon to the  
 north—In a friendly country—Raids at the beginning of a war—

Conditions of their execution—Example in case of a European state—Much might be done by patrols—Raids would be of little use—No time for the instruction of cavalry in everything

Pages 111-122

## LETTER XI

CONCERNING THE DIFFICULTIES AGAINST WHICH CAVALRY HAVE  
TO CONTEND

Increased demands on cavalry—Breaking-in of remounts—Instruction of the men—Reconnaissance and outposts—Labours of a squadron commander—Affection for his horses—Difficulties of the officer commanding a mass of cavalry—Panics—Example—Officers' patrols—Cost of the cavalry . . . . . 123-136

## LETTER XII

THE DEMANDS MADE UPON THE CAVALRY OF THE PRESENT DAY,  
AND HOW THEY WILL BE MET

Statement of requirements—Instruction of officers—Three days' march of a cavalry division—30 miles per diem—Attention to horses—Changes of pace—Division of a forced march—To practice changing from order of march to order of battle—Example of manœuvres of two cavalry divisions—In addition to manœuvres of all arms—Postpone discharge of men—Extra rations . . . . . 137-149

## LETTER XIII

CONCERNING THE DETAILS OF INSTRUCTION

Change of date of receipt of remounts—Should be broken in at once—Amount of training for the first year—The recruits—Individual instruction—The theoretical course—Riding—On the snaffle—Division of classes in riding—Advantages of the new system—Miscellaneous exercises . . . . . 150-165



## LETTER XIV

## THE DRILLS AND EXERCISES OF THE SQUADRON

The drill season—Advantage of postponing the inspection—Important to gradually accustom the horse to work—Constant changes of instruction, to avoid weariness—Carbine practice—System of inspection—Drill by signals—The charge—Loose charges—The fault of the squadron leader—Small squadron drills—Useless

Pages 166-182

## LETTER XV

## FIELD SERVICE

Difficulty of instruction—Proposed plan—Reconnoitring parties and advanced-guards must be quite distinct—Officers' patrols—More useful for reconnaissance than a larger body—Examples

183-193

## LETTER XVI

## THE MANŒUVRES OF LARGER UNITS

Dressing by the centre—The flanking squadrons—Method of conducts—The *mêlée*—Timing the charge—The second line—Manœuvring—Examples—Distances—Peace and war—The leader of the second line—The cavalry leader—Requirements and qualities

194-208

## LETTER XVII

## THE QUESTION OF ORGANISING CAVALRY DIVISIONS DURING PEACE

Necessity of exercising cavalry in division—Should divisions be organised as such in time of peace—Arguments—Separation of cavalry—Has already failed—Old pedantries—Plan proposed for the working of cavalry divisions in peace—Rarity of efficient cavalry leaders—Reasons against organising cavalry divisions—Mobilisation—Passage of troops by rail—Increase of cavalry

209-222

## LETTER XVIII

## CAVALRY IN COMBINATION WITH INFANTRY

Special enemy of cavalry is cavalry—cavalry is an auxiliary arm—  
 Leaders of infantry must study its peculiarities—Cavalry more  
 numerous at manœuvres than in war—Cavalry must share in the  
 manœuvres of infantry—Decisions of umpires—Suggested plan  
 for umpires—"Putting out of action"—Cavalry must learn how  
 best to assist infantry—And infantry to take advantage of the  
 action of cavalry—Mounted patrols in battle . . . Pages 223-234

## LETTER XIX

## THE ACTION OF DISMOUNTED CAVALRY

In the last war—Objections to employment of dismounted cavalry—  
 Amount of strength available from a division—Difficulties of  
 equipment—Want of ammunition—Not equal to a weak battalion  
 —On the defensive—Examples—Cavalry cannot be independent  
 —Limit of dismounted action—No time for training in peace—  
 Position of cavalry . . . . . 235-244

## LETTER XX

CONCERNING THE POSTING OF HORSE ARTILLERY TO THE  
CAVALRY DIVISION

Proportion of guns in 1870—Use of a cavalry division—And of  
 horse artillery—Distribution—Should be more than one battery  
 to a division—The officer commanding the battery—The officer  
 commanding a brigade division—A battery with a cavalry  
 brigade—Internal administration affects distribution—Units of  
 artillery should not be broken up—Honours and rewards—Horse  
 artillery to join corps artillery in battle—Proposed distribution  
 . . . . . 245-256

INDEX . . . . . 257

## LIST OF PLANS

- I. CAVALRY ENGAGEMENT AT THE BATTLE OF CUSTOZZA  
(CHARGE OF THE ULANS).
- II. CAVALRY ACTION—BATTLE OF VIONVILLE.
- III. CHARGE OF BREDOW'S BRIGADE—BATTLE OF VIONVILLE.



*M. S. J. of India. - S. 318.*

## LETTER I

### GENERAL REMARKS ON CAVALRY

YOUR question as to my opinion of the value of cavalry, which since the last wars has been variously estimated by different writers, causes me some little embarrassment; since I feel that I, as a gunner, should not be recognised as a competent judge either by cavalry or infantry men. You certainly say that as a gunner I can give an impartial opinion, that I have had the opportunity of seeing a great deal of cavalry in war and peace, and that I, when commanding a division, had for seven years cavalry under my command, and then inspected and judged them, and that I must thus have obtained some little knowledge of their character; in this you are, perhaps, not altogether wrong. But, nevertheless, I begin with a certain amount of diffidence to put my opinions into writing, and should prefer to take a rather bird's-eye view of the question, such as the commander of a mixed Division, who has both arms under him, must take; and I shall only notice the details of cavalry so far as it is absolutely necessary to do so.

I must first of all say that I sincerely regret the acrimony of the discussion which sometimes arises

on this subject, since such an antagonism between comrades of one and the same army who are called upon to help each other and to combine to carry out that great task, the defence of the Fatherland, can lead to no good results. In war the infantry soldier feels delightfully safe, when he knows that his mounted comrades are miles away to his front, and will bring him all information, so that he will be able to sleep peacefully at night in well-guarded quarters, since the enemy is still so far away that a night attack is impossible; on the other hand, the cavalry soldier in war breathes freer when, as he is pressed back by a superior enemy upon a defile, he sees that his infantry have occupied it, and that he can find cover and security in rear of them. Such occurrences produce a friendship and a *cameraderie* which not rarely grows into a close brotherhood-in-arms. Who does not know the story of the "Heurichs" during the War of Liberation?<sup>1</sup> Who does not know that the Hussars and the Rifles of the Guard at Potsdam wear the same colours, though the colour of their tunics is very different? This feeling of brotherhood sometimes lasts longer than the war which produces it.

But the historian then takes possession of all events, and founds his account upon information and narratives, which are often partially or altogether untrue; he can thus never give an exact and perfect picture of personal impressions, since the best history can describe only what took place, and not how the

<sup>1</sup> The "Heurichs" were certain regiments which, in consequence of good services reciprocally rendered, considered themselves bound to each other by a brotherhood-in-arms.

event appeared at the moment to those concerned in it; he forms his opinion from statements and assertions which perhaps even affirm the uselessness of some arm (as possibly may here and there have been the case), and thus good feeling between the various arms is diminished, which is a source of great loss to the whole army.

It is therefore necessary to study the matter with the greatest possible care, and to avoid such extreme assertions as have sometimes been made. Many people have gone so far as to say that there is no reason for the existence of cavalry. We have even read how a certain writer has said that one cavalry soldier costs as much as ten infantry, and that the Army of the Loire under Prince Frederic Charles would, towards the end of the year 1870, have been more quickly victorious over the enemy, if in place of 20,000 cavalry they had had 200,000 more infantry. As if armies were merely the result of mercantile transactions, and could be bought or hired on the Exchange, as were the armies of the Italian Condottieri during the second half of the fifteenth century. We will not dispute as to the accuracy of these numbers (though it would be possible to do so), but he who made this assertion has never considered that, in an army which is based on universal service, since every man capable of carrying arms takes part in a war, it is impossible to supply 200,000 infantry in the place of 20,000 cavalry, simply because there are not enough suitable men available. We can at the most make 20,000 infantry out of the 20,000 cavalry, and thus perhaps keep a little money in our pockets; but the victori-

ous enemy would soon have taken this from us, since he, owing to his superiority in cavalry, would have had more information about us than we about him, and would thus at once have gained a strategical advantage, and have brought the war to an end disastrous to us.

Other writers have then, with an anger easy to understand, taken up the cudgels on the other side, and we need not be surprised if they also have gone too far, and have set the efficiency and the value of cavalry in too rosy a light. It is true that none of them have drawn the deduction, that infantry ought to be abolished, from the assertion of Napoleon III., in his *Causes qui ont amené la capitulation de Sedan* (which, as I know from a sure source, he put even more strongly at the interview with our King on the 2d of September 1870, when he said that our cavalry and artillery had alone brought about our great success), but they wish, with a sort of spite, to separate the cavalry altogether from the infantry, and offer as a reason for such a division a prospect of the most brilliant results from the raids and attacks of a cavalry thus made independent.

Such extremes in polemics concerning the relations between the two arms may, at the beginning of a war, produce very bad effects. If a leader of infantry took the cavalry at their word, and formed expectations of them which in practice were not fulfilled, he would be unpleasantly and disagreeably surprised, and he who is surprised in war is sometimes half beaten. If, on the other hand, he has an unfavourable opinion of the efficiency of cavalry, taken perhaps from some book which runs down that



arm, he will not use it or has no sympathy with it, and thus all common action will be impossible, and failure will result.

Such strife can only be mischievous. But excellent results will be obtained when both weapons live in harmony together, and learn to know each other as well as the time of their training will permit ; they will thus each gain a clear knowledge how to assist the weakness of the other arm, and how to make use of its strength. I have often noticed this to my great delight between certain regiments.

Opinions as to the value and the manner of using cavalry differ more from each other than do those concerning the worth and the employment of the other arms.

This arises from the contrast which exists between the many glorious victories which cavalry won in the older wars and the small number of charges of cavalry in mass during the latest campaigns. In the three Silesian campaigns of the last century there was hardly a single battle which was not decided by cavalry, or in which they did not "clear the ground." One very decisive battle (Rossbach) was almost entirely, on the side of the victors, fought out by the cavalry. The history of the war of 1870-71 speaks of more than twenty great battles and a very long series of engagements and actions, in which the number of combatants was larger than in the great battles of the Seven Years' War, and in all these combats masses of cavalry have been used by the Prussians only once, at Mars-la-Tour, and by the French three times, at Wörth, Mars-la-Tour, and Sedan, while besides these, there has been but one

charge (at Loigny) by a force as large as a cavalry brigade. These facts have induced many writers to set down cavalry in general as valueless, while those who are in favour of that arm, in their longing after the glorious days of Hohenfriedberg, Rossbach, Leuthen, Haynau, Lieberwolkwitz, and Laon, prefer to find fault with the leading and the movements of cavalry in the last wars, rather than acknowledge that the time for such glorious days for it is past.

But when I think of the sentiments which we felt towards our cavalry during certain episodes of the campaign in which I took part, and thence draw conclusions as to what value was attributed to that arm in the other actions, I find myself obliged to directly controvert the ground upon which each writer of either arm bases his opinions, and to assert most distinctly that the cavalry was in the last great war moved on excellent principles, and that it had quite as large a share as the other arms in the successes of our army in the campaigns of 1870-71. I am ready to prove my assertion.

No regiment, certainly, as at Hohenfriedberg, returned from a charge with 66 captured colours, while cavalry has undoubtedly no longer that immense superiority over the other arms which it had in the time of our great King. The improvement in fire-arms has swayed the balance the other way, and the efficiency of cavalry has become diminished to such as is due to their essential element, the power of rapid movement. Moreover, one effect of this element, the pursuit, was wanting in most of the great battles, since the enemy took refuge behind the walls of his fortresses, and no one has as yet expected cavalry to storm

these. Again, a pursuit by cavalry became unnecessary when the whole of the enemy's army capitulated. In the case of many of the larger battles in the winter, the slippery ice deprived the cavalry of their essential swiftness, and thus prevented an efficient pursuit. After other engagements, however, a very efficient pursuit has taken place and a full result has been obtained. I am far from wishing to assert that the movement, leading, and employment of the cavalry has always been without faults. Nothing that men do is perfect. Our cavalry had in the war of 1870-71 no fewer, and no more, sins of omission or of commission to regret than had the infantry or the artillery, and it is a proof of the excellent spirit which they possess that they have found fault with themselves, and have sought carefully and intelligently to discover in what the failures consisted, and above all to improve themselves.

But no one, unless he belongs to the arm, has any right to blame these faults of individuals, or to disclose them; I will therefore pass on from the subject. Each of us has his own door to keep clean. The cavalry has generally to overcome much greater difficulties in training and leading than have the other arms, and these difficulties tend to increase with the increasing demands which are made on the cavalry. The latter are already so great that even in peace the officers of cavalry have to bear a greater burden on their pockets and on their health, and have to study more than the officers of other arms, if they desire to carry out satisfactorily the duties which fall upon the cavalry. Formerly it was sufficient to have a strong arm, a good sword, and

the courage of a good rider on a good horse in order to be an excellent cavalry soldier. These are now only elementary matters of course ; the improvement in firearms has so much increased the difficulties with which the cavalry have to struggle, with reference to their training and leading, that they daily require more energy and spirit, if these are to be overcome and the duties of the cavalry of the future are to be discharged.

But the duties of the cavalry in the future are really not different from what they were in the past. It is merely that some of them, and these the most brilliant, are now in the background, while the more modest, which have been less spoken of, but which are not less important, have come to the front. It is only the *discharge* of these duties which has become more difficult.

We know how zealously the cavalry works in order to meet the increased demands upon it. The new Cavalry Regulations, the new Instruction in Equestration, and the practice marches all bear witness of this. I name only these three things, since they are the most marked of the newest fatiguing duties of the cavalry.

But, nevertheless, I do not wish to say that the efficiency of the cavalry is now perfect. I think that much still remains to be done in the details of training ; the order of instruction, the leading, the movement, and the plan and direction of the drills might serve their ends better with a less expenditure of force. In my opinion the principal object of these possible improvements does not rest in the hands of the cavalry itself, since it is affected by their movements and the plan and direction of their

drills, which are principally ordered by those who are not cavalrymen.

I might appear for this reason to doubt whether a good organisation might not be obtained by an entire organic separation of cavalry from infantry, by the permanent formation of independent cavalry divisions and by their union under Inspectors, with an Inspector-General of cavalry at their head, as many writers on cavalry have suggested. But the tasks which the cavalry have to carry out arise from the demands which the army as a whole makes upon them, and find their fullest development in an intimate union with the other arms. Cavalry would run some danger of drifting into a groove if it were separated altogether from the other arms; it can never gain by itself an independent success for itself. Those times are past in which whole armies could be composed of mounted men. Cavalry, like artillery, can only expect to obtain the best results, if it remains always convinced that it is only an auxiliary arm to the infantry. The infantry is the army, and makes use of the cavalry and artillery. The cavalry must work for the infantry, and can learn only by close union with the infantry what services the latter will require from it; just as the infantry can learn only by close union with the cavalry what services it can and should render to it, and what assistance it may expect from it. I think, therefore, that our present arrangement is better, according to which the Inspector-General of cavalry is sent to the larger cavalry manœuvres only, in order to observe them and to report to the supreme authorities. A few Inspectors of cavalry might perhaps be placed under him who might,

under his direction, attend to the uniformity of cavalry training, and who would be named as commanders of cavalry divisions in case of war.

It might be possible, even if one did not approve of the extreme measure of abolishing cavalry, to desire at least a reduction of this arm, on the ground that their importance is less prominent than it formerly was. There has been much writing and fighting over the question as to what proportion the number of cavalry should bear to that of the infantry. This proportion has varied in all epochs and in all armies. I consider that to attempt to lay down a hard and fast line for this proportion would be the act of a theoretical pedant. Under the law of universal service, which makes the necessity of rightly employing the whole strength of the nation in the hour of danger the only correct principle for the organisation of an army, this proportion depends upon the condition of the Fatherland. The duties of the cavalry are so comprehensive and so important, especially at the first moment of a war, that we cannot have too many cavalry ready for service. Every effective man, and every effective horse, must be employed for the defence of the Fatherland, and thus the amount of the stock of horses in the country will alone decide the number of the cavalry of the army. For an organisation which would compel us to supply our requirements in horses to any considerable extent from abroad, could not in the long run be properly maintained.

## LETTER II

### THE SHARE OF THE CAVALRY IN THE SUCCESSES OF 1870-71—RECONNAISSANCE

IF the assertion in my last letter, that our cavalry in the campaigns of 1870-71 had as great a share in the successes of our army as had the other arms, seems to you to need proof, I will endeavour to prove it to you.

I might really limit myself to quoting a single sentence from the Official Account of the War, which you will find on page 1305, Part I., vol. ii.; it runs:—

“The numerous German cavalry, upon whose clear and trustworthy reports the decisive resolutions of the Royal Headquarters were based, etc. etc.”<sup>1</sup>

The result bore witness to the exactness of these resolutions.

But the information obtained by the cavalry was only a part of the results of their efficiency and of their action in front of the army. They overflowed the country miles, and even several marches, ahead of the main body of the infantry. Every one now finds that quite natural; that is what the cavalry are there for. But in the year 1870 such an em-

<sup>1</sup> Page 415, Part I., vol. ii. of Major Clarke's translation.—*N. L. W.*

ployment of the assembled cavalry masses was a new thing. It is now easy to prescribe it, when it has been once already done. In former days the main body of the cavalry was held back to form Reserve Cavalry for the Attack, and only the Light Cavalry was sent forward. In this respect the Prussian Cavalry had been in no way superior to that of other armies. In the two first Silesian wars the great King had found himself surrounded in all directions by the enemy's Hussars, who discovered all his movements and hid those of their own troops, and even in the Seven Years' War the Austrian Light Cavalry showed themselves superior in minor war to the Hussars, which the King had in the meanwhile created.

In the wars at the beginning of this century the great Napoleon did not always make such use of his cavalry as did our leaders in the last struggle, and in spite of the immense experience of war of the French *Grande Armée*, we find the infantry often marching carelessly at the head of the column. The surprise at Haynau is a good example of this manner of proceeding. Some individual leaders in our army made sufficient use, during the War of Liberation, of their Light Cavalry, as is proved by the dispositions made, and the deeds done by Katzler. But the mass of the cavalry was still left in rear. The idea of a Reserve Cavalry, which at the decisive moment might be let loose upon the enemy's main strength, was still paramount, and kept its force during the war of 1866, in which we find on both sides the same retention of the cavalry masses, which were intended (as it was said), like



a torpedo, to strike the final blow at the last moment.

This name "Reserve Cavalry" was a very unfortunate expression. It is hard to believe that a mere word could have such influence. And yet it had.

Rarely would a leader send to the front anything which bore the title "Reserve." What was the use of a reserve if it was to be employed at the beginning of an action? When I, on the 18th of March 1869, at a conference at the Military Club at Berlin, proposed that our Reserve Artillery should be used early to prepare the action, a jeering French critic asked: "What is this reserve which is not a reserve?" For this reason the name "Reserve Cavalry" was abolished and "Cavalry Divisions" were formed, just as the name "Reserve Artillery" was changed into "Corps Artillery."

We find that at the beginning of the war of 1870 the cavalry was not during the earlier days employed as it was later on, when all France in anguish and fear trembled before the Prussian Ulan. Though France had declared war on the 19th of July, yet up to the beginning of August our cavalry carried out only some bold excursions by single patrols. It is true that on the 5th August the 4th Cavalry Division was pushed forward on an extended reconnaissance towards Hagenau and Reichshofen, and that by it was ascertained the presence of strong forces of the enemy behind the Sauer. But even during the battle of Wörth, the 4th Cavalry Division was kept in the rear, about 8 miles (English) behind the line of battle, presumably as a Cavalry Reserve, since the orders for the 6th of August were based

on the assumption that there would be no battle on that day, but that the army would only close up and change front to the right, and that thus the 4th Cavalry Division, owing to the strong occupation of the line of the Sauer, would not be required in the front. The victories of Spicheren and Wörth first gave the Cavalry Divisions some idea of their future work, and the principle which had found its origin at Headquarters, of using the cavalry in front of the army, then received its full application. A new idea is like a spark of fire, of which the poet says—

“I am at first only puny and small, but my wings grow as I fly.”

When, for example, we (the Guard Corps), moving on the 7th of August, from Homburg to Bliesscastel and Assweiler, drew near the frontier, the cavalry division of the Guard was still marching in rear of the Corps. The orders for the march of that day permitted it only to move the head of its column as far as Webenheim, where the whole of the 2d Division of the Guard was in front of it, though the 1st Division was at Assweiler. On the same day an officer of the Brunswick Hussars with four men had taken Saargemünd, in which little town there were two companies of the enemy's infantry. In consequence of a verbal capitulation by the “Maire,” the companies were sent out of the town, for the Lieutenant threatened to bombard it with his troops (four men), and thus this important defile fell into our hands without a shot being fired.

The Guard Corps did not send its Cavalry Division to the front until we had crossed the frontier

on the 8th of August, and then only advanced it four miles, as far as Gross Rederchingen and Achen, while the Corps lay near Moranville. We certainly did not come up into the foremost line until the 7th of August, up to which date our Corps had been advancing in the order of march in rear of another Corps, while even on the 7th of August, the Cavalry Division of the Guard could not extend along the front, since the space before the I. and II. Armies was fully occupied and commanded by the 5th and 6th Cavalry Divisions.

From the 8th of August the distance which our cavalry occupied before our front continually increased, but with some interruptions, which arose from the fact that other Cavalry Divisions had sometimes previously taken up all available space before us.

On the 13th of August the Guard Corps arrived at Oron, and the Dragoon Brigade of the Corps was sent forward on Dieulouard, about two marches to the front, where it reached the passage of the Moselle and the railway Metz-Nancy, and drove back a train full of infantry who had been sent to defend the defile of the Moselle, thus cutting at this point the communication between Metz and Nancy.

On the same day the 5th Cavalry Division actually passed the Moselle, and reconnoitred the ground on the farther bank.

I have not yet seen any observation made in a military work, on the importance with respect to our operations of this rapidity, owing to which our cavalry had on the 13th of August already reached the Moselle. Napoleon had shortly before, in a despatch which he sent to Paris, rightly spoke of the "im-

pregnable positions of the Moselle," on which he intended to retire the army. When we from the eastward reached the Moselle, we saw a river valley nearly 2 miles in width, which could be crossed only by bridges without parapets and wide enough for but a single line. On the farther side the commanding heights of the left bank rose like fortresses, and involuntarily we thought of the difficulties which we should have had to encounter, if the enemy had awaited us in this advantageous position, with that wide depression before his front. But he had never occupied these "impregnable positions," although he possessed a line of railway in the valley of the Moselle, since our cavalry, by means of forced marches of unsurpassed length and rapidity, had been beforehand with him. We may doubt whether our success of the 18th of August would have been so decisive, if our cavalry had given the enemy time to destroy all the passages of the Moselle between Metz and Nancy, or, yet more, to oppose us with infantry and artillery from the commanding left bank of the Moselle. He certainly by the 13th of August had had sufficient time for this purpose, if he had made up his mind to it on the 7th of August, on which day the French commanders must have realised the consequences of the defeats of Wörth and Spicheren. He would certainly have decided for it, if he had known what masses of German troops were being directed on the passages of the Moselle above Metz. But swarms of our cavalry surrounded him, and allowed no information of the movements of our main columns to reach him. Bazaine and Napoleon have over and over again stated that the masses of

our encircling cavalry kept them in entire ignorance with respect to our principal forces. As early as the night between the 11th and the 12th of August, our cavalry patrols had destroyed the telegraphic communication between Metz and Nancy, and had reached the Moselle at Pont à Mousson and at Nancy.

Though it is true that the French commanders had, up to the 13th of August, neglected to destroy these passages, and had been deterred from doing so by their indecision whether to fight to the east of the Moselle or to retire on Châlons, yet it was entirely due to the action of our cavalry that, from the 13th, such a course became impossible to them, and we were able to cross the river without any loss of time.

Some critics have accused our cavalry of not having made full use of the pursuit after the victory of Wörth. But independently of the fact that the 26 squadrons, which directly pursued, captured on the very evening of the battle 19 officers, 1593 prisoners, 14 guns and one colour, the 4th Cavalry Division was pushed forward on the 7th, and four days later reached Nancy (distant about 70 miles), and this through the numerous defiles of the Vosges.

When an enemy who has been totally defeated flies before us, having no more troops capable of resistance, it is then certainly the duty of cavalry to capture all the wreck of the defeated army by a direct pursuit, and thus to annihilate his forces. But when, as on the 6th of August, only a partial victory has been obtained, and when, as at Spicheren, whole armies, as yet unengaged, are standing in rear of the beaten troops, then such an annihilating pursuit by

the cavalry becomes impossible. In that case the cavalry will do better to break through the intervals in the enemy's position and to threaten his flanks, since he cannot know what is in rear of this enterprising cavalry. This indirect pursuit, as Höpfner calls it, was on this occasion carried out with very great energy, and enabled our highest authorities to aim, in their arrangements for the movements of our main columns, at the annihilation of the enemy's army.

We must then, if we wish to be impartial, recognise that our cavalry from the 6th to the 13th of August, and thus at the very beginning of the campaign, before the main strength of the two armies had come in contact, had developed a decidedly successful action, and had contributed not a little, even before the battle, to ensure victory to our standard.

But far more grand, important, and decisive was the action of our cavalry masses from the moment when they crossed the Moselle. Though they knew that they were within reach of the main force of the enemy, though detachments of the hostile infantry were visible on the mountainous and wooded left bank of the valley of the Moselle, two Cavalry Divisions (the 5th and the Guard), with a total strength of 60 squadrons, crossed the river at Dieulouard and Pont à Mousson, pushed forward into the heart of the enemy's theatre of action, and there extended themselves, with the object of bringing more certain information as to the condition of the hostile main army.

On the 14th of August, during the combat of Colombey-Nouilly to the east of the Moselle, a

squadron of the Dragoons of the Guard (under Captain Trotha), following the French Chasseurs, had already advanced to Toul, and had with genuine cavalry swagger summoned that fortress to surrender. During the 15th of August the Guard Corps received the order to detach its Dragoon Brigade temporarily to the X. Corps, and on the 16th of August this force took a decisive part in the battle of Mars-la-Tour. It is impossible to ask more than this from the mobility and rapidity of cavalry, since Mars-la-Tour, as the crow flies, is 31 miles from Toul.

The movements of the 5th Cavalry Division on the 15th of August were also strategically decisive. It advanced to the north, and found the enemy at Mars-la-Tour. It extended itself as far as Jarny and Rezonville, on the line of retreat of a hostile army 200,000 strong, and after a slight skirmish with the enemy's cavalry, boldly bivouacked there (at Suzemont, Puxieux, and Xonville), although it was at a distance of 9 miles in front of the advanced Division of Infantry at Thiaucourt, while the remainder of the infantry had not yet passed the Moselle.

These movements of this Cavalry Division were strategically decisive, since they established the fact, that a very large part of the enemy's army, if not the whole, was still near Metz, for they could see a considerable bivouac of masses of the enemy at Rezonville. The orders of our staff for the 16th August were based on this information.

What more could be asked from cavalry? They moved in masses round the enemy's army, threatened

the line of retreat of a foe as yet but very partially defeated, carried by their rapid action disquiet into the hostile ranks, and uncertainty and indecision into his orders (see Bazaine's *Episodes*), and passed the night on the line of retreat of an army of overwhelming strength, so near, as it were blade to blade, that the enemy's bullets fell in their bivouac.

Many writers note in the movements of the German cavalry an absence of raids after the American pattern, and even one of themselves, and one of the best, says that in this respect our cavalry might have done more in 1870. But what greater effect could such a raid have than this which was obtained by the 5th Division? A raid cannot be made merely for the sake of making a raid. Well may the heart of many a soldier throb, when he reads, how in America great masses of cavalry made marches a week long, through immense tracts of country, over mountain and valley, through rivers and woods. But in the end there was some object for it. And if this object, the threatening of the enemy's flanks or rear, the confusing of his plan and theatre of operations, and exact information as to his strength and position, can be gained by a ride of two days, have not the cavalry nevertheless obtained their end?

The action of the Cavalry Division of the Guard on the 15th of August was almost as strategically important, though it had only a negative result, namely, the knowledge that none of the enemy had reached the Meuse. In consequence of this the German Corps on the Moselle were able to be moved to the



north against the enemy, who had been seen in bivouac on the 15th, without running any danger of being taken in flank from the west. They were able to fall on the enemy, who strove to retire from Metz on Verdun, to hold him by a battle, and to so prepare everything, that by the 17th and 18th of August his retreat was for ever cut off.

## LETTER III

### THE PART PLAYED BY THE CAVALRY IN BATTLE

In my last letter I got as far as the 16th of August, the day of the principal cavalry engagements in the last war.

The German troops which carried through this action had the following cavalry :—

	Squadrons.
The 5th Cavalry Division . . .	36
The 6th Cavalry Division . . .	18
The Dragoon Brigade of the Guard .	8
The Divisional Cavalry of the 3d } and X. Army Corps . . . }	16
Total . . . . .	<u>78</u>

The action of these masses of cavalry on that day must, if examined with impartial eyes, excite wonder and admiration, and very much can be learnt from it.

In the first place 37 squadrons, by means of their 24 guns, startled the enemy, whom they had surprised, from his comfortable rest, and caused a partial panic, at least among the enemy's cavalry who were in bivouac. Then they met the hostile infantry, and surrounded them in a threatening half-

circle, with the support of the 6th Cavalry Division which was just coming up with their 18 squadrons and 6 guns (Official Account, vol. i. pp. 357-361). The enemy's infantry stood to their arms, and prepared to attack the cavalry. Six Infantry Divisions and a half were employed to drive them back on their own infantry. Thus 8250 cavalry (I take the official establishment) occupied 65,000 of the enemy's infantry, and threatened their flanks and line of retreat until the advancing infantry took up the action. We cannot but fully approve the fact, that the cavalry in this case made no charges, which could not have been successful, and thus carried out their task, the reconnaissance and the occupation of the enemy, almost without loss. In the days, however, of Hohenfriedberg, Rossbach and Leuthen these 55 squadrons would have charged and ridden down the infantry. This change is the result of the improvement in firearms, which has done away with the irresistible superiority of cavalry over other troops, and has reduced them to an equality.

After our cavalry had been relieved by their own infantry in the action against the enemy's masses, they for two hours formed the Second Line in support of the long thin lines of our infantry, as they fought from ten to twelve o'clock, boldly attacking an enemy of double their strength. For at this spot the III. Army Corps, assisted at first only by Lyncker's detachment, were engaged with three French Corps (Official Account, vol. i. pp. 372, 373). The advance of the Prussian infantry against even this superiority in force was so decisive, that Bazaine began to use his cavalry, in order to gain

breathing space, while General von Alvensleben ordered the 6th Cavalry Division to pursue the beaten enemy and thus to complete the victory. Hereupon took place a series of cavalry charges of greater or less importance, which all showed practically to the cavalry the limits of their effective action against infantry. Both sides charged with great courage, the advancing infantry were brought to a stand, infantry who gave way were ridden down, and even some guns were taken. But where the cavalry attacked infantry who were still intact, especially where the latter found some cover from the ground, the cavalry were unable to prevail. They had to retire out of reach of the fire of the enemy.

During these charges the French infantry had been so greatly reinforced, that the thin lines of the III. Corps could no longer think of attacking, but were merely able to endeavour to hold their position until the X. Corps should come up. Here again the Prussians drew back a part of their cavalry as a Second Line in rear of the infantry, which had already sent its last man into action. But the greater part of the Prussian cavalry was used to cover the left flank, where two Corps of the enemy had been deployed, which it was necessary to observe and contain. At this moment Marshal Canrobert sent forward his corps to a decisive attack.

There was great danger that this attack might, owing to the numerical superiority of the enemy, overwhelm the III. Corps, since this had no more infantry or guns in reserve, while its nearest support (the 20th Division) was far distant (Official Account, vol. i. p. 385); General von Alvensleben therefore

ordered Bredow's Brigade to charge in order to gain breathing space for the 6th Division. This brigade consisted of 6 squadrons, and charged round the left flank from Vionville. The first lines of the enemy were ridden down, the line of Artillery broken through, their teams and detachments cut down, and the cavalry swept through the whole of the hostile position, until far in rear it was met by closed bodies of French cavalry of overwhelming strength. It gave way before these, yet again swept through the enemy's lines, and rallied, terribly diminished in number, almost at the same spot from which it had started.

This charge of Bredow's Brigade has been severely blamed by many writers. It has been called useless, objectless and resultless, and also a destruction without motive of material which was very costly to the country. Let us consider at once the sacrifice and its consequences from the point of view of figures. The total loss of the two regiments, of each of which 3 squadrons attacked at this point, was 409 horses during the 16th of August (Official Account). If all this loss be supposed to have been incurred in this one charge (and we have no right to suppose this, as during other times in the day the Brigade also suffered loss), even then the Brigade with a loss of 409 men saved an entire Army Corps, charging with barely 800 men against the whole of a hostile Corps, riding down the first line of the infantry, and cutting down the teams and the detachments of the guns; it checked this entire Corps for the whole day of the battle, and this was a long time, since it was then only between 2 and 3 P.M.

(Official Account). "The movement which the 6th French Corps had commenced to make was brought to a stand, and was soon altogether given up. At least the French during the day attempted no new advance from Rezonville." If we thus consider it, the charge of 800 cavalry against 40,000 men is not only a deed of valour of the first rank, equal in every way to the most celebrated and famous deeds of all wars, old and new, but it also obtained at an extraordinarily small sacrifice a success of rare importance and was by no means an objectless ride to death, like Cardigan's charge at Balaclava, though many critics have tried to make it out to be so.

Others again blame the cavalry for having charged on this occasion without supports, and much is said as to how far more lasting would have been the effect if it had been followed up by a second and a third line. That is certainly true, but to reproach the Brigade with it is unjust. How much more lasting would the effect have been if Bredow's Brigade had been followed by 100 squadrons. But there were no more cavalry there. Time pressed, something had to be done at the moment, and that was employed which happened to be at hand. The 11th Hussars could not be brought up until after the charge had commenced, and when they came were used to give the necessary cover to the rally of the ruins of the Brigade. Where then, I hear the critic cry from his study, were the 78 squadrons, which were before mentioned? We know that at this very moment the 3d and 4th French Army Corps were advancing, and, passing the side of the 6th Corps, were threatening the left flank of the Prussian III. Army Corps.

Thither went a part of the great mass of cavalry, with the object of reconnoitring and holding the enemy. Even Bredow's Brigade had to detach 2 squadrons in this direction, in order to secure their left flank. Moreover, a large portion of the cavalry, taking the place of an infantry second line, had to be kept distributed in rear of the widely extended fighting line of the III. Corps (which stretched nearly 3.5 miles, from Vionville to the Bois de St. Arnould), at every point of which similar crises might be expected. Every critic will, of course, lay down the maxim, that a rational system of tactics should arrange to bring overwhelming strength to bear upon the decisive point. As a general principle this is correct, but in a battle in which from the beginning until nightfall you have to fight against a superiority of 3 to 1, it is impossible. In such a case as that it shows great skill to be able to collect at the decisive points sufficient strength to hold the enemy in check. The cavalry in this battle did its duty well. It hurried from one threatened point to another, and fought wherever fighting was necessary.

The charge of Bredow's Brigade caused a sort of pause in the action. The French evidently were waiting for the success of the turning movement of the 3d and 4th Corps. On the Prussian side the weary remains of the Infantry of the III. Corps were rallied and reformed. The battle was (at 3 P.M.) begun again by the Artillery.

In the meanwhile both the French Corps advanced actually against the flank of the Prussian Corps. The few battalions in the Tronville copses and the cavalry had the important task of delaying these

great masses, but about 4 P.M. these troops had to fall back over the high road, on which the Artillery alone maintained itself, and that with difficulty. At this critical moment the X. Army Corps came up. The 20th Division of Infantry recovered the Tronville copses from the enemy, and half of the 19th advanced towards Mars-la-Tour to the attack of the enemy posted on the plateau to the south of Bruville. This last-named attack fell directly on the front of the 4th Army Corps of the enemy, as it advanced in line of battle, and against such overwhelming strength which was, moreover, favoured by the ground, could have had no other result than total failure. Within a very short time the Brigade was forced to retire with heavy loss, and ran some danger of being annihilated by the pursuing enemy. But the 1st Dragoons of the Guard threw themselves upon the pursuers. The enemy's infantry massed themselves round their eagles, ceased to press on our men, and were, moreover, broken through and ridden down, while the thinned ranks of our infantry were able to rally, and our guns, which at one time were in serious danger, were saved and brought into position on the high road, as the French pursuers turned back to their old position. The charge of the 1st Dragoons of the Guard on this occasion saved the 38th Brigade, exactly as Bredow's Brigade had saved the 6th Division. I should only repeat what I have said before if I made any remarks on this point. The losses were heavy, but small in comparison with the result. Half a regiment of cavalry (250 horses) was sacrificed in order to save a Brigade. Colonel von Auerswald, who was severely wounded, rallied the



remains of the Dragoons, formed them up, called for a cheer for the King, and then fell dead from his horse. Such an action recalls those heroic deeds which the old Greeks and Romans relate of their bravest men.

Immediately after this took place the great cavalry fight to the north-west of Mars-la-Tour. Twenty-one squadrons of Prussian cavalry fought here against the regiments of Generals Montaignu, Legrand, and de France. The cavalry on both sides were well handled, and they rode resolutely into the fight. Line after line joined in the struggle, and made the combat waver backwards and forwards. After a fierce contest with sabre and lance the French cavalry masses gave way, and were received about Bruville by 5 cavalry regiments (probably 20 squadrons) under General Clérambault, which, however, did not renew the action. The Prussian cavalry rallied on the plateau which they had won, and then retired into the line of battle of their infantry, who had in the meantime reformed near Tronville, and were prepared for fresh resistance. Darkness fell upon this phase of the combat.

This cavalry action also has been called, by critics who condemned it, an unnecessary cavalry duel. But when both sides wish to employ cavalry in places which, by their nature and the character of the ground, are not unfavourable to that arm, cavalry duels must take place before the desired result can be attained.

In the case mentioned above it is impossible to deny that the cavalry on both sides were used at the proper place. On the Prussian right and the enemy's left the ground was not suitable for the employment

of cavalry masses. Moreover, the infantry on the Prussian left had received a check. It was quite natural that the French cavalry masses should have attacked in order to fall upon the left flank of this wavering infantry, and thus to convert the momentary success into a victory. It was equally natural that the Prussians should send all their available cavalry to this wing, in order to cover the threatened flank. Thus arose the cavalry duel. It was by no means without result. The Prussian cavalry had the advantage. Owing to the excellence and the number of the enemy's cavalry he did not suffer a severe defeat, but he was driven back in the end, and the Prussians held the field of battle. The result was that we obtained all that we wanted to obtain. Our infantry was enabled to reform itself for fight, "the combat was restored," and night fell without the enemy having dared to advance again. If any cavalry must be blamed, it is General Clérambault's 5 regiments, which took no part in the charge. They might have converted the Prussian victory into a defeat.

Though one of our greatest military authorities (11th and 12th Appendices, *Militär-Wochenblatt*, 1881) declares that the successes of our Cavalry Divisions at Vionville would have been greater if they had acted in masses, this opinion certainly contains no reproof to the cavalry. For the Official Account states that the Divisions could not be massed, since it was compulsory to employ them along the whole extended front of the line of battle, in support of our infantry who were inferior in number to that of the enemy. Thus it came about

that to the left of Mars-la-Tour not one massed Cavalry Division could be brought up (the 5th with 36 squadrons was perhaps in that part of the field), but that all the cavalry that happened to be in the vicinity had to be hastily collected in squadrons, regiments, or brigades.

On the other flank of the Prussian line the battle also ended in a great cavalry fight. After the charge of Bredow's Brigade, when the action had been carried on by the artillery for a considerable time, the Prussian infantry was again urged to the attack by the appearance of reinforcements, sent up to the right wing by the VIII. and IX. Corps. Several valiant and combined attacks were made, especially on the extreme right flank, and were carried through victoriously. But the advance of superior hostile reserves continually obliged the infantry to fall back into their old positions. After this costly but glorious combat had lasted for a long time, Prince Frederic Charles ordered towards evening a general advance of the line of battle of the 3d Army Corps, and set all the three arms in movement. The 6th Cavalry Division was to strike the final and decisive blow. Reinforced by the Divisional Cavalry, it advanced with a strength of 21 squadrons. It was already growing dark when it rode forward to the attack. Grüter's Brigade fell upon some impregnable positions, in which the enemy had bestowed themselves, and was compelled to give way. Schmidt's Brigade rode down the skirmishers, broke up a few groups, and finally returned to the infantry, who had achieved a success, most glorious considering their numerical weakness, in that they had carried a height to the

south of Rezonville, which had been disputed during the whole day.

Many people also find fault with this charge of the 6th Cavalry Division, and consider it as without result ; they even say that it should not have been made at all. As a rule no one would like to decide to make a cavalry charge by night. Blucher's well-known cavalry movement at Gross-Görschen failed owing to a broad canal which had not been noticed in the darkness, and, though it certainly threw Marmont's Corps into confusion, it is doubtful whether the French, had there been no disturbance in the night, would have started any earlier in pursuit the next day, since they have never been very fond of early starts. But the great night attack by cavalry at Laon did indeed decide the battle. If the ground is sufficiently well known, a night attack of cavalry is less blamable in the present day than it was in earlier times, since the darkness prevents the enemy from making full use of his long-range firearms.

As far as concerns this Cavalry charge at Vionville, the result of it was of very considerable importance. Certainly only small bodies of infantry were ridden down and broken up, but a night attack of this kind with all three arms seems to have appeared very imposing to the enemy, and his infantry did not wait for a second. It drew back to Rezonville (Official Account, vol. i. p. 421), and thus along the entire front of the 3d Army Corps the enemy abandoned the field of battle which had been contested during the whole day, namely, the plateau to the south of the high road from Vionville to Rezonville.

Moreover the leader of the enemy could find no explanation of such boldness but the receipt of strong reinforcements by the Prussian troops, and for this reason in the course of the night decided upon a retreat. Thus the indecisive battle became a victory, while for this victory the army owed almost as many thanks to the courage and daring of its cavalry, as it did to the heroic endurance of the infantry and artillery. The infantry had fought all day in an inferiority of numbers as compared with the enemy of 1 to 4, and later on 1 to 3; it had lost nearly all its officers in heroic and costly attacks; it had been broken up into the smallest units; and was in the evening, in spite of the reinforcements which it had received, not half so strong as the enemy, for he possessed more intact troops who had not fired a shot, than the whole of the shattered and wearied Prussian Army Corps could number. The Prussians could not make the amount of ground which they had gained a reason for claiming the victory. In the centre they had certainly retained Vionville, which was captured at the beginning of the battle, and on the right hand had won about a mile of ground; but on the left they had lost about as much. From this arose a change of front around Vionville, by which the Prussian line, which at first faced the north-east, fronted at the end of the battle towards the north.

If Bazaine at the break of day on the morning of the 17th had made an attack in mass with the whole of his untouched reserves, the success of such fresh troops over the less numerous and battle-weary Prussian army could scarcely have been doubtful.

The valour and hardihood of the Prussian cavalry may have done as much to prevent this as the courage of the other arms, who on a very wide front and in a very thin line kept constantly on the offensive, and thus induced in his mind the mistaken opinion that the whole German Army was already collected in his front.

If we think what would have been the result, if Bazaine had struck this blow with his reserves, and had at 4 A.M. on the morning of the 17th attacked the Prussian troops, who had already been engaged on the 16th, and had forced them back upon the defile Görze-Thiauourt, we must own that the blockade of the Marshal in Metz, and the entire annihilation of his whole army, which took place at a later date, would have been scarcely possible.

How then can we compare the certainly very sad losses of the cavalry on this day with their share in such a success? The whole of the cavalry regiments who took part in the last night attack on the right flank lost 360 horses in the course of the entire day. If we even suppose that the whole of this loss was incurred through the night charge, we must nevertheless acknowledge that these casualties are nothing compared with the immense result.

Who then can now speak of useless sacrifices?

## LETTER IV

### HOW OUR CAVALRY COVERED THE INFANTRY

YOU make it a subject of reproach to me that I have in my last letter shown myself by no means impartial, but have rather written a panegyric upon the cavalry. But I have really no reason to speak especially in praise of that arm. I only wish to render honour to the truth or, as I would rather say, to express what I myself felt with regard to the cavalry during the campaign. When I look back upon the further course of events during the war, I cannot refrain from bringing forward yet more proofs in support of the statement made in my first letter, that the cavalry had as great a share in the general success of the war as had the other arms.

On the 17th of August the Ulan Brigade advanced from the cavalry of the Guard as far as St. Mihiel on the Meuse, and pushed its reconnaissance even farther to the west. Since this cavalry was sent out so far to the west, that any chance advance of the enemy from that quarter, which might be calculated to cause annoyance, would be known two days before that enemy could attack, it enabled all the German Corps between the Meuse and the Moselle to change the direction of their march on

that day, either to the west or the north, with the greatest security, as they hurried to assist the Corps which had fought on the 16th of August. In a similar manner the cavalry division of the XII. (Saxon) Corps advancing towards the north-west, covered the army towards Verdun, and established the fact that only a very small fraction of the French army had as yet fallen back with the Emperor to the westward, and that the main army of the enemy was still at Metz. The Saxon cavalry scouted as far as Etain and Verdun. Thus the action of the above-named cavalry enabled the general staff to dispose their whole strength, with the greatest certainty and in all security, with a view to bring on a decisive action with the French main army, and to cut off its retreat.

On the 18th of August took place the gigantic fight between the two armies. On this day the cavalry divisions, as a whole, played no very great part in the reconnaissance of the enemy. Before the commencement of the action the two armies stood so near to each other, on our right, that it was scarcely possible to push forward cavalry masses for the purpose of reconnaissance. For this reason such cavalry divisions as were with the army were held back in reserve. On the left flank the Saxon cavalry division scouted yet farther towards Etain and Verdun, and thus covered the rear. But the divisional cavalry took a part in the battle which, though it was not dashing, was nevertheless active and useful. I still remember clearly how the squadron of hussars, pushing forward under Count Gröben, sent information to the Guard, which had



reached Doncourt and had there deployed, that an advanced guard of the enemy, consisting of all arms and having the strength of about a brigade, was moving from St. Privat la Montagne to Ste. Marie aux Chênes. This information corrected the original, but mistaken idea, that the right wing of the enemy extended only as far as Amanvillers, and enabled the staff of the Guard Corps to move its infantry by the nearest way by Habonville (leaving this on the left) on St. Ail, in order to attack Ste. Marie from there.

Covered by these advanced hussars, and in secure confidence that they would be informed in time of any change in the movements of the enemy, the Guard Corps marched towards the enemy in mass formation, such as troops, as a rule, do not venture to use when in the neighbourhood of the foe. It is true that, according to custom, they had an advanced guard of 4 battalions and a battery, but the main body followed so closely after it, that the whole marched in a single huge column, of the width in the centre of 3 battalion columns, all in close order, with the artillery in column of batteries in the intervals. Thus the imposing mass advanced across country, along the crest of the heights, and was not compelled to adopt the formation of attack until it had almost come within reach of the enemy's bursting shell.

I also remember distinctly the moment when I, in order to prepare the attack, had placed in position the artillery of the 1st Division of the Guard and the Corps Artillery on their left, far in front of the infantry, with their right resting on the Bois de la

Cusse and their left on the village of St. Ail. The right flank was covered by some troops of the IX. Corps which held the Bois de la Cusse ; the Hessian cavalry had reconnoitred the ground in my front up to the position of the enemy on the heights of Amanvillers St. Privat, and now cleared my front, retiring through the intervals between the guns ; but my left flank at St. Ail appeared quite uncovered. Swarms of hostile skirmishers pushed forward from Ste. Marie towards St. Ail, and made me fear for the left flank of my line of guns. I hurried thither and saw to my great comfort that the entire regiment of hussars of the Guard were there, in a hollow of the ground, and so covered my left flank. I was thus enabled to stay quietly in my position, until the leading infantry (the fusiliers of the Guard) had occupied St. Ail, when all danger for my left flank entirely ceased owing to the retirement of the enemy's skirmishers, and the eventual storming of Ste. Marie. Thus the divisional cavalry reconnoitred close along our front, while the great cavalry masses, the cavalry divisions, reconnoitred and covered us at a greater distance in our rear. Moreover, the divisional cavalry took a great and important part in the battle itself, as it pushed forward and covered our flank.

No charges in mass of our cavalry, such as had taken place on the 16th, were to be seen on the 18th of August. In the right portion of the field of battle the ravine between Gravelotte and Point du Jour, which lay under the fire of the enemy's main position, prevented an opportune assumption of the proper formation, since the cavalry were there com-

pelled to deploy under an exceedingly hot fire. For this reason the effort to advance there which was made by the 1st Cavalry Division (reinforced by two regiments of hussars) failed altogether. On the left wing the action took the form of a storming of the localities of St. Privat and Amanvillers, and the cavalry could take no part in that. Thus the cavalry which was present had nothing to do but to wait ready for action behind the foremost line until the issue had been decided.

Some critics have remarked on the absence of a pursuit by cavalry at the end of the battle of St. Privat. On our right wing, from Point du Jour to Amanvillers, any pursuit was impossible, since the enemy remained in possession of his main position. Again our infantry did not enter the village of Amanvillers until it was growing dark, while after the capture of St. Privat there was nothing to pursue, since so much of the enemy's infantry as had not retired before the storming and found cover in the woods in rear, had been annihilated in St. Privat, part of them being killed and part made prisoners. Moreover, the French army fell back during the night under the cover of the ramparts of the fortress, and thus entirely prevented any cavalry pursuit.

Since the battle had been hotly contested until dark, it was necessary at daybreak on the 19th to make sure as to what was the position of the enemy. We shall find that even before daybreak various cavalry squadrons trotted to the front, and ascertained the entire abandonment of his position by the enemy, who, however, had only just left it. But so much of the Saxon cavalry division as was held back at Auboué

amounting to one brigade (for the greater part was reconnoitring and covering the rear on the Meuse as far as Verdun), hastened to Mezières in the valley of the Moselle, and thus, under the guns of that fortress, completed the blockade of the enemy.

Let us now consider the action of our cavalry from the date of the battle of St. Privat to that of the catastrophe of Sedan.

After the organisation of our troops, which had been disturbed by the loss of so many superior officers, had been re-established, the army of the Meuse was, as is well known, made up from the II. Army, and was brought to the same strength as the III. Army. A day of rest having been given to the exhausted troops on the 22d of August, both armies began their advance towards Paris on the 23d of August, expecting to fight the enemy in the neighbourhood of Châlons, where MacMahon, in the presence of the Emperor, had drawn together a new army.

The III. Army, which lay a little farther to the front than the army of the Meuse, marched from the line Ménil la Horgne—Treveray—Hundelaincourt—Gondrecourt, which as the crow flies was about 68 miles from Châlons. The cavalry hurried forward, and by the evening of the 24th had already discovered by means of patrols that the camp at Châlons had been abandoned. The various corps of cavalry must in these two days, during which they had constantly to ride backwards and forwards, while the road was of course longer than the distance as the crow flies, have marched at least 90 miles. On the 25th of August the reports from these cavalry corroborated

the supposition which had been formed on other grounds, that the army of MacMahon had moved towards the north, with the object of passing round our right flank, and of thus reaching out a hand to the besieged Bazaine. It may be well to mention, by the way, that these advanced cavalry divisions effected everything which can be expected from great cavalry raids. They took prisoners whole battalions of Mobs who were in process of formation, and who, though they had not yet their uniforms, were already fully armed. On the evening of the 25th of August I saw one of these brought in. The reports of the cavalry reached our headquarter staff on the night of the 25th of August, and in the course of the 26th of August our march to the west was stopped, and was immediately directed towards the north.

From this moment the two cavalry divisions of the army of the Meuse (which had up to this time been held back), namely, the cavalry of the Guard and that of the XII. (Saxon) Corps, took up the duty of reconnoitring in the new direction. These two cavalry divisions had to make tremendous forced marches; the cavalry of the Guard, forming an arc inclined towards the right in our front, moved to Rechicourt, while that of the XII. Corps pushed its advanced brigade on the same day even as far as Dun on the Meuse, and thus ascertained that the enemy had not yet occupied this, the most direct, route from Rheims to Metz.

Whilst from this time forward the XII. and the Guard Corps were hurried by forced marches towards the north, in order still further to bar the road to

Metz against the enemy, the cavalry divisions hastened far to the front, with the object of discovering where that enemy was.

On the 27th of August some of our daring cavalry officers had already moved round the French Corps, and their reports made it certain that they were at Vouziers. One of these officers (Lieutenant von Ziegler of the Ulan Regiment of the Guard) must on this day have ridden nearly 90 miles. The cavalry of the XII. Corps pushed on to Stenay, and patrolled as far as Beaumont. At that place they met with the enemy's cavalry.

On the 27th of August, at Buzancy, took place the first engagement with the enemy's cavalry, who were driven back by the Saxons, and on the 29th of August our Ulans of the Guard brought in a staff-officer who was innocently and carelessly travelling from one corps to another with orders. The French officers were thus, even when in the midst of their own corps, no longer safe from our bold cavalry. This capture was of the greatest importance to us, since on this staff-officer were found orders for the march of the hostile army for the following days. These demonstrated the accuracy of the opinions of our general staff with regard to the enemy's movements.

The first result of this was the victory of Beaumont, where the careless foe was surprised in full daylight, and nearly two of the enemy's corps were dispersed. It is necessary to have seen it, as I did the day before the battle of Beaumont, before one could realise how our cavalry swarmed round the enemy's columns on the march, just as bees swarm

out of their hives against an intruder. I saw one corps, which as it marched by me during many hours, I reckoned at 40 battalions, continually annoyed and delayed by our troublesome Ulans. Sometimes whole companies broke out in anger from the column of march and fired volleys at single patrols, who then quickly fell back and as far as possible avoided loss. The result of all this was indescribable fatigue for the enemy's infantry. They reached the end of their march, as night fell, utterly tired out, and neglected from very weariness the most ordinary precautions as to outposts around their miserable bivouacs, while our infantry, quite near to them but without their knowledge, was comfortably housed in villages.

On the day after the battle of Beaumont the two last-named cavalry divisions followed up the advantage which had been gained, not directly by making prisoners, but indirectly, in accordance with the general situation, by bearing off to the right, in order to deny to the enemy the use of the road to the east as far as the Belgian frontier. At this point the cavalry of the Guard prevented the departure of a provision column from Carignan, since with their artillery they broke up a few wagons; this column supplied the Guard Corps for 8 days.

On the evening of the 31st of August the cavalry divisions completed their rôle as advanced cavalry with regard to MacMahon's army. The infantry on each side was within fighting distance, and the net, which the cavalry had thrown round the enemy's corps, was reinforced by the other arms, while the time was now come for these to reap the harvest which the cavalry had prepared.

No prominent use was made of our cavalry in the battle of Sedan. An uneasy feeling of inaction in the midst of the raging battle drove many of our cavalry to take a part in the combat. There were, as the result of this feeling, a few charges of small bodies, which perhaps might as well have been left alone; and there was no possibility of pursuit after the victory. But this was quite in the nature of things. While firearms did the rough work, the cavalry was held in reserve in rear, covering and observing the flanks and the rear. As for pursuit there could be none, for the whole of the hostile army capitulated.

On the other hand, the cavalry of the divisions continually took part in the action, charging with single squadrons, and patrolling and reconnoitring in the battle; I could, except for fear of repeating myself and wearying you, quote many examples, how our brave troopers, while my artillery were in action, rode about between the two lines of fire, in order to obtain information as to the enemy and the ground. The divisional cavalry took a similar part in all the later actions at which I was present. The patrols rode with the greatest audacity close up to villages which were to be stormed, and brought back tidings as to whether and how the enemy had occupied them. The services which these divisional cavalry rendered to the infantry were so valuable that, during the long war of positions before Paris, each company, when it had even the smallest task to carry out, used to ask for some troopers to carry reports and to form patrols.

After the battle of Sedan I received an order, on



the 5th of September, to make an endeavour to secure the surrender of the fortress of Montmédy by bombarding it with field artillery. When I arrived before the fortress at break of day, I found that the cavalry had already on the preceding evening so surrounded and so amply reconnoitred it, that I was able to at once make my dispositions for attack. Every item of information given by the cavalry was absolutely correct.

A rapid glance at the marches of the troops from the battlefield of Sedan up to Paris will sufficiently show how, during this unintermittent advance of our army, the cavalry divisions were always several marches in front.

The cavalry divisions arrived before Paris two days in advance of the infantry (for example, they were before Gonesse and Stains on the 17th of September), then crossed the Seine, and on the day of the investment carried out that operation by themselves on the west side, covering themselves towards the fortress and towards the west, until two days later, when the investment was completed by the infantry on that side also. During this time our cavalry performed deeds which have been considered as quite natural and as by no means deserving of extraordinary praise. But the Official Account has taken notice of these actions. Our cavalry crossed rivers of which the bridges had been broken down, and rode into towns, villages, and woods, in which they met with resistance from the inhabitants and the *Francs-tireurs*. They suffered thereby some loss, and it sometimes happened that patrols were swept away, but on the other hand weak troops dispersed

whole companies of the national guard, and took their officers prisoners. From this we see that, when infantry is discouraged, or against militia raised in haste which has not the necessary cohesion, the old superiority of cavalry reappears.

As soon as the investment of Paris was completed, the cavalry almost singly took up the duty of covering the rear of the army. Only towards Orleans was a Corps of infantry pushed out. The other cavalry, which worked far away in the rear, received no support from the infantry until the latter had, by reinforcements from home, been raised to its full strength, which, at the time of its first appearance before Paris had been reduced by a third.

They then advanced to the north as far as Compiègne and Beauvais, to the north-west to Etrepagny and Les Andelys, and to the west to Dreux and Evreux, a distance of about 45 miles, while their patrols swept on yet farther to the gates of Rouen and Chartres, until they met with such resistance as could not be overcome without the assistance of infantry. The cavalry of the troops who were pushed forward to Orleans advanced as far as Salbris, nearly 45 miles farther to the south, and scouted towards Blois and Vendôme. Knowing of such deeds, it is with the greatest astonishment that one reads in a pamphlet the statement that the vast mass of cavalry, which we had with the army in front of Paris, did nothing and was of no use. We had, indeed, not one trooper too many, and would gladly have employed more if we had had them.

The more extended "raids into the heart of the

enemy's country," which certain writers on cavalry declare should have taken place at that time, would have required more cavalry than we possessed, or, if great bodies of cavalry had been detached for this purpose, would have so much diminished the number of that arm which remained in connection with the army, that the security and the covering of our Army of Investment would have been seriously compromised; apart from this consideration, that in civilised countries, inhabited by a large and hostile population and crossed by numerous railways, such raids must be much more limited in extent than in the vast plains of America, where also it was possible to count upon at least a partial sympathy among the population.

I will not continue the enumeration of the various feats of our cavalry during the last campaign, and have spoken only of such actions as I, in my service during the war, was connected with either directly or indirectly. I am convinced that in all the other theatres of this immense war the deeds of that arm were of equal importance, and that every impartial person who, like myself, was in a position to estimate, from the point of view of a General in command, the services which the cavalry rendered to us, must have formed the same opinion as to the value of that arm.

If, on the other hand, cases are quoted, in which some individual force of cavalry might have done better, or where some individual commander, owing to faulty dispositions, did not fulfil the expectations formed of him, such matters cannot change the opinion which I entertain of our cavalry as a whole.

For nothing can be done anywhere in which some fault cannot be found. The most brave and skilful warriors, such as Napoleon and our great King, also committed faults. But it is neither my business, nor is it in my power, to disclose such faults, and thus, after the event, to judge men who at another time, perhaps on the very day following, performed the most brilliant deeds.

## LETTER V

### HOW OUR CAVALRY LIGHTENED THE TASK OF THE INFANTRY

I HAVE in my last three letters made no mention of one result which our cavalry obtained, a special service which they rendered to the infantry, and for which the latter were exceedingly thankful.

It was this : the cavalry continually harassed the enemy's infantry, and thus saved very much exertion to our own. Hence it was more capable of making long marches, and thus the designs of the General Staff were materially aided.

He who has made a march in war, during which the advanced-guard has had to patrol every wood and every locality, while the continual halting and waiting tired the infantry more than the length of the way, will be able to realise what service our cavalry rendered to their infantry, if he compares it with such marches as we made in 1870, when our infantry, as if in the midst of peace, were able to march quietly along up to the moment when they came into action. If our infantry had been obliged to send out patrols to a distance, and to form every night a chain of connected outposts, they would have marched as slowly as the French, and an advance of

9 miles in the day would have tired them more than did one of 18 miles, when they were covered by the cavalry screen.

At any rate in that case our infantry masses could not have carried out the marches which they actually executed, and the combinations of our General Staff would have failed. Even as it was the marches which they did make required unheard-of exertions from them. The Guard Corps left the Rhine on the 3d of August with a strength of about 30,000 bayonets; it lost nearly 8000 at St. Privat, and 350 in the battle of Sedan, while on the morning of that action it numbered only 13,000 men; on the day of the investment of Paris it had only 9000 bayonets. Thus over 12,000 infantry were deficient owing to the losses by fatigue. If the cavalry had not taken over from the infantry almost the whole of the outpost and patrol duty, and if the latter had not been able, owing to them, to march entirely at ease as if in peace, the Guard Corps would perhaps have arrived at Paris on the 19th of September without any infantry.

The marches made in the year 1870 exceeded those of all earlier campaigns. For example, the marches of the Guard Corps between the 3d of August and the 19th of September amounted altogether to 540 miles, while the infantry who took part in the attempt on Montmédy marched 567 miles. During these 48 days the troops had only 4 days of rest, and, moreover, took part in three great battles. The marches of the other corps were about the same. Such performances would have been

impossible but for the swarms of cavalry which covered the front.

Our infantry divisions, it is true, in accordance with the Regulations, always when on the march pushed forward an advanced-guard, which took post in rear of some feature of the ground and sent out outposts. But these advanced-guards had only to serve as a support for the cavalry, in case the latter were driven back, while the outposts were limited to placing picquets and sentries at the entrances of the villages, with a view to prevent any outbreak on the part of the inhabitants, and in order to provide that the reports sent in by the cavalry should, even at night, be sent in as quickly as possible to the proper authority.

As a rule the infantry after a march of this kind went into cantonments, while the whole march, as well as the halts, was arranged solely with a view to the necessities of the troops, who were never disturbed to any noteworthy degree by considerations with regard to the enemy. Every one indeed knew that the country was reconnoitred so far ahead, that the cavalry could give notice of any advance of the enemy at least 24 hours before the attack could take place. When, as an exceptional case, the advanced-guards were pushed so far to the front, and were consequently so near to the cavalry, that there was a possibility that they might not be able to get into position from their cantonments in time for action, there was a special order given, that these divisional advanced-guards should bivouac. The corps infantry as a whole rarely bivouacked, and then only when, owing to the great concentration of troops before and

after the main decisive battles, it was impossible to provide sufficient shelter for the whole force; for example, before and after the battle of St. Privat, and after the battles of Beaumont and Sedan. Before the battle of Sedan the whole of the infantry of the Guard lay under shelter in cantonments. During the days when the direction of march was suddenly changed from the westward to the northward, and the corps were consequently at close interval, the Guard Corps had to bivouac for a few days, since the marches for several days together were so long that it was considered likely to tire the troops more if they divided into cantonments than if they were to bivouac. On the 28th of August the corps reached the Andon brook, having Banthéville and Romagne in its front. On its right stood the XII. Corps which extended as far as Dun. These two corps could not reckon upon support before noon on the 29th, and it was by no means impossible that the whole of MacMahon's army, which on the 27th had been at Vouziers (18 miles from Banthéville), might fall upon them with all its strength. At least this was the best thing the enemy could do, if he wished to stretch out a hand to Bazaine. For this reason both corps were ordered to be on the watch and to be ready for battle. It seemed absolutely necessary that the Guard Corps should bivouac in its position with the two villages Romagne and Banthéville on the Anthon brook before its front. But a tremendous storm of rain fell during the march into position, which wetted everything through and soaked the ground. Relying on the trustworthiness of the advanced cavalry, which would in any case bring



information of the approach of the enemy soon enough to allow the position to be occupied in time, the General in command was able to permit the infantry to take advantage of the shelter of the two villages named above. As a matter of fact, the whole corps found cover against the abominable weather in the vast dwelling-houses, stables, and barns.

Experience teaches that a lengthened course of bivouacs, especially in bad weather, dissolves the coherence of troops. General von Reyher, that practical authority on staff matters, held as a principle that the worst cantonment is better than the best bivouac. Whoever has bivouacked in pouring rain may imagine with what thankful faces our tired infantry sought a shelter in which they might be able to dry their clothes. And to whom were these thanks due? To the cavalry, which lay in front of them near the enemy, and who for their sake bade defiance to the weather during the whole night in the open air.

But the enemy had no such repose. Continually harassed and annoyed by our cavalry, compelled at every moment to halt and drive them away, he had to employ an enormous time in most weary marching in order to get over a few miles. For example, the 7th French Army Corps, which left Boulton aux Bois early in the morning of the 29th of August, being continually annoyed by our Ulans, did not reach its destination, La Besace, that day, for towards sunset we saw its tents pitched near Pierremont, scarcely 7 miles from Boulton aux Bois, while then the tired infantry soldiers had to employ the night in cooking

and eating, and found little time to prepare themselves by sleep for fresh exertion. It is not surprising that infantry when so wearied should have neglected their outpost duty, and should thus have offered us the opportunity of falling upon and alarming their bivouacs. The French camps were on several occasions roused in this manner. Every soldier knows the prejudicial effect of such alarms upon the morale of troops, and how much is lost in consequence of them in the way of provisions, cooking apparatus, baggage, etc., and how terribly the further needs, toils, and privations of the soldiers are increased by them. The reports of the French troops sufficiently prove this. One of the most important alarms was the surprise of de Failly's corps at Beaumont, since this resulted in the destruction of the entire corps. If, therefore, the French army was, before the beginning of the decisive battle of Sedan, already tired out, partially discouraged and broken up, this great service was due to our cavalry, just as was also the discharge of the other grand duty, that the German leaders should have such complete information with regard to the enemy, that they might safely venture to work round them.

On the other hand, our cavalry kept all such difficulties far away from our infantry. During the whole of the movements of the war, from the time we left the Rhine until we arrived before Paris, it never happened that our infantry was alarmed by the enemy. Moreover, the "alarm" call was rarely sounded. We in the Guard Corps, at this time, heard it only in the early morning before daybreak

on the 17th of August and the 1st of September. On each occasion it was used only to assemble the troops for their advance against an enemy who was several miles away, and the orders which immediately followed it gave the men time to prepare and arrange everything for the march with perfect quiet and deliberation.

On all other days during this part of the campaign the infantry were set in movement only by the regular orders which were, for the most part, given on the previous day.

Except on the two days named above, an alteration by a counter-order of the regular prescribed orders for the march took place on the 26th of August only, when we, in consequence of MacMahon's movement towards our right flank, had to change the direction of our march from the west to the north.

Thus the movements of our infantry during these 45 or 48 days went like clockwork. It is marvellous how much the wear and tear of troops is diminished, when they know beforehand what they are to do, when they know what demands will be made upon them, and when they can take their meals and their rest without being disturbed; that it was possible for our leaders and for the General Staff to direct our infantry in this masterly manner was entirely due to the service done by the cavalry.

Permit me to recapitulate, under various heads, the services performed by our cavalry during the last great war, in order thus to form a basis for further statements.

1. The cavalry divisions scouted far before the

front of our main bodies of troops, and swarmed round those of the enemy, thus preventing his General Staff from learning anything of our movements, while they kept our staff continually informed of all that the enemy did. They enabled our leaders "to lay down the law to the enemy," as Clausewitz says, that is to say, to fight only when they wished. Thus the victory was half won before the battle began. For the enemy was groping in the dark, while our leaders saw clearly. When a blind man fights with one who can see, he must succumb, even if he be as strong as the other. When Ulysses put out the eyes of the Cyclops he deprived him of his power to do harm.

2. The cavalry divisions tired out the enemy, and preserved their own infantry from much exertion, owing to which the latter were able to make far longer marches than the hostile infantry.

During the movements they, in combination with the divisional cavalry, relieved the infantry from almost all outpost and patrol duty, etc.

3. During an indecisive battle, of which the balance seemed to incline towards the enemy, the cavalry, joining their efforts to the last exertions of the infantry, decided the victory in our favour.

4. In various battles and engagements the cavalry reaped the fruits of victory by a vigorous pursuit, direct or indirect, and thus increased the importance of the triumph.

5. While the struggle was being kept up by the other arms, the divisional cavalry, by reconnoitring, covering the flanks, etc., took an active part in the contest.

6. One duty performed by the cavalry of former days it never discharged, namely, that of covering the retreat of beaten troops, since in the last war no complete defeat can be recorded against us. But in the only battle which was unfavourable to us (Coulmiers), they did everything that cavalry could be asked to do.

It is true that it is impossible to deny that the success achieved by our cavalry might not have been so brilliant if the enemy had employed his cavalry as skilfully as we did. He held his back, in the old traditional way, as a last reserve for the moment of the crisis, while even as that it repeatedly failed. But this is the very strongest possible proof of the value which must be attributed to cavalry. For if the enemy had made as much use of his cavalry as we did of ours, the result would have been a struggle, before the decisive battles, between the two advanced forces of cavalry, and the part which our cavalry played could have been assumed only by that force which gained the upper hand in this contest. I do not doubt but that our cavalry would have been victorious in it, but would it then have been of sufficient strength to perform the duty which it actually carried out? I think not; we should then, I believe, have been convinced that we had, not too many, but too few cavalry.

## LETTER VI

### THE DIMINUTION, OWING TO THE EFFECT OF FIRE, OF THE PART PLAYED BY CAVALRY IN BATTLE —HISTORICAL EXAMPLES

THE great experience gained during the last war affords us solid grounds on which to judge as to what may be demanded and expected from cavalry in the future.

The duties of the cavalry of the present day will always be, as I have already remarked, the same as those which that arm discharged in former campaigns. It will always watch the enemy, conceal its own forces, assist in final decisive action at the end of the battle, and either take up the pursuit or cover the retreat. Its duty is to a certain extent less liable to change than that of the other arms, above all, than that of the artillery, since the main element of cavalry, the horse, is less affected than are firearms by changes due to inventions. But the degree of the usefulness of cavalry in the various spheres of its action will be modified, passively it is true, by the spheres of effect of the other arms, and thus the centre of gravity, around which cavalry must especially concentrate its action, will be subject to variations.

If we first consider the direct share of the cavalry

in a decisive action, we shall hear the opinion everywhere expressed that, since the invention of rifled infantry firearms and of rifled guns, such days for cavalry as Rossbach and Hohenfriedberg can never return. Even the cavalry acknowledge as a principle that they cannot attack intact infantry with any expectation of success, and only the other day a cavalry general of high rank told me how little he was pleased with the handling of his cavalry at the last manœuvres, since they had been constantly allowed to charge intact infantry.

Yet there were some actions during the latter wars in which the cavalry obtained truly notable success, even against fresh infantry. In the war of 1866 all the infantry had rifled arms, though certainly not all breechloaders. Yet there we find, for example, at the beginning of the battle of Custozza (Austrian Official Account, vol. ii. pp. 61-65), that the two Austrian brigades, Pulz and Bujanowics, with a total of 15 squadrons (each according to reports from 150 to 160 horses strong), at the most 2400 men, rode forward into the battle, and that the former charged the front of the fully formed divisions of Generals Humbert and Bixio. They rode over the skirmishing lines, broke through several squares, and spread terror and dismay even as far as the rearmost troops. Owing to the highly cultivated condition of the plain of Lombardy, most of the infantry battalions found shelter among the thick rows of trees, and thence opened a destructive fire on the cavalry which, nevertheless, galloped back again between the lines of battle. What was the result of this charge? Not only were 36 hostile battalions

rendered incapable of taking part in the action during the whole day, but they were, moreover, so shaken that they had to be supported by Pistoja's brigade. The charge took place shortly after 7 A.M. At 11 A.M. (see p. 91), and even at 4 P.M. (see p. 117), both the above-named divisions, still under the influence of this reckless charge of the Austrian cavalry, stood yet, as if held by a charm, motionless in front of Villafranca.

But the cavalry was neither paralysed nor annihilated. It remained in front of these divisions during the entire day and so impressed them, that they did not dare to advance to the aid of the rest of the army. At 5 P.M. it charged them a second time (p. 121), took about 1000 prisoners from the fugitives who fled down from the Monte Croce and Monte Torre, captured whole companies from among the divisions, so terrified the infantry that whole masses of them came forward to give up their arms, and finally pushed its audacity so far that it actually summoned the enemy's generals to surrender. It was then at last stopped from further success by an energetic fire. In any case these 2400 troopers, without any support from their own infantry, drove back 25,000 intact infantry of the enemy (Humbert's, Bixio's, and Pistoja's brigades), and made a host of prisoners whose number exceeded their own strength. The success of this daring charge contributed enormously towards the victory of the entire army. For it is very doubtful whether the Austrian army would have gained the battle, if this infantry could have been brought up to the decisive point at Custozza.

At another part of the same field of battle our attention is drawn to another cavalry charge against



infantry, undertaken, it is true, with a small force, but with success out of proportion to the strength employed. Between 7 and 8 A.M. the Italians in enormous numerical superiority had driven back Benko's brigade, which formed the right wing of the Austrian army, and having taken the position Monte Cricol—Mongabia—Fenile, were so posted as to seriously threaten the flank and rear of the Austrian line of battle. It was absolutely necessary to dislodge the enemy, and Weimar's brigade advanced to the assistance of Benko's brigade, while Piret's brigade attacked the right flank of the advancing enemy. If the Italians had succeeded in fully occupying this strong position before the attack took place, it would have been exceedingly difficult to drive them out of it. But three sections of the Sicilian lancers left them no time to do so. They charged the Italian infantry (p. 74), passed through Pisa's brigade, and fell upon Forti's brigade; a panic seized upon the latter, and 4 battalions out of 5 broke up and were lost to the enemy for the remainder of the day. It is true that the three sections were almost destroyed, but what was the loss of 2 officers, 84 men, and 79 horses in comparison with the result of their charge; 4 battalions were driven off the field of battle, a panic was created in the enemy's ranks, no time was left to the Italians to establish themselves in the position, of which, moreover, the recapture was made possible, while its retention by the foe would have implied victory for them in the battle.

And this success was won by the cavalry in the closest country in the world, riding up and down hill

on the roads, between vineyards, mulberry gardens, and walls.

In the battle of Königgrätz I saw a battalion of Austrian infantry which had been broken up by our shells. A squadron of our dragoons charged it and made 3 officers and 70 men prisoners.

In the same battle (Prussian Official Account, p. 342) a victorious Austrian battalion advanced from the Swip Wald (in which the fight had wavered backwards and forwards during several hours) into the open ground on the northern side, and thus broke through the whole Prussian line of battle, for it was already moving in the direction of the copse near Horenowes. A single squadron (the 1st of the 10th Hussars) of a strength of not much more than 100 men (as I have heard from others) took the whole prisoners. Sixteen officers and 665 men laid down their arms to a force of cavalry one-sixth of their number, and the latter suffered no loss, for the battalion was surprised and charged before they could make use of their arms.

The great cavalry fights at Königgrätz, which we may perhaps assume as known to every one, have also been described by many writers as cavalry duels without result. But the fact is, that the reason that a cavalry duel took place, was because both sides recognised that that was the proper place and moment for cavalry to attack. No one can prove that this cavalry attack was useless. If we think of the position of the Austrian army, such as it was at 4 P.M. on the 3d of July 1866, it is impossible to deny that the greater part of it, hemmed in as it were on three sides, appeared likely to undergo a catastrophe similar

to that of Sedan. Already the greater part of their artillery had fallen into the hands of their enemy, and their line of retreat was threatened on both flanks. Then the cavalry, true to their duty of covering the retreat, threw themselves upon the enemy. On the Prussian side, on the other hand, as the enemy gave way, the cavalry were ordered to pursue. The cavalry masses thus came in contact with each other. We need not be astonished that the Austrians, who had been held ready in masses on the defensive, had at first the advantage over the pursuing Prussians, who had to advance to the attack through defiles. But gradually, as the Prussian regiments came up to the scene of the contest, they gained the upper hand. Nevertheless, it is certain that the Austrian, as well as the Prussian, cavalry fulfilled their object on this occasion. For under cover of the cavalry action, which took a long time to decide, the broken infantry of the Austrian army was able to gain time to in some degree recover their organisation. The shattered battalions fled through Königgrätz, but those who closed the column had so completely recovered their condition, that officers who commanded some of our cavalry regiments have told me that, after the enemy's cavalry had been driven back beyond Wsestar and in rear of the squares formed by this infantry, the infantry brigades showed such a determined front that it would have been madness to charge them. Thus the design of the Prussian cavalry to gain the full value of the victory by a pursuit came to very little. If we suppose the Austrian cavalry masses to have been absent, then the whole Austrian army would have been lost between 4 and 5 P.M. ; and if

we imagine the Prussian cavalry away, in that case the charges of the Austrians might perhaps have changed the result of the battle, as the Prussian cavalry actually did at a later date at Vionville.

I have already in my earlier letters said enough of the cavalry charges in the last-named battle.

But these successes of cavalry, considered as an arm for battle, are in the latest wars counterbalanced by their failures against infantry. In the battle of Königgrätz, immediately after the fortunate charge of Dragoons which I saw near Horenowes, the whole regiment endeavoured, on the other side of the hill, to fall upon some retiring infantry on the march. The charge was not successful. The regiment, after the Colonel had met with a hero's death, had to fall back without the smallest success. The Austrian cuirassiers, who had at first the advantage over their adversaries in the great charges at Königgrätz, were dispersed at Langenhof by the rapid fire of the needle-gun. Some days before, during the fight at Gitschin, 2 battalions of the regiment of Grenadiers of the Bodyguard were not delayed a moment in their advance, though the brave Austrian squadrons made most determined and excellent charges upon them. The bodies of the troopers and horses covered the ground, but the infantry did not lose a single man.

On the one hand the Prussian cavalry made successful charges at Vionville; but on the other the charges of the French cuirassiers at Wörth, and of the French cavalry at Vionville, against the Prussian infantry failed altogether. An infantry officer who was present told me, with regard to a cavalry charge

at Wörth, that at the moment our infantry were falling back down a slope from an attack which had failed, a hail of chassepot and mitrailleuse bullets followed them, and every one felt that he would never reach the cover of the wood which lay below them. Tired to death and resigned to their fate, the whole of the infantry were slowly crawling towards this wood. Suddenly the murderous fire ceased. Every one stopped astonished to see what had saved them from the fate which seemed certain to them. Then they saw the French cuirassiers, who, as they pushed forward, masked the fire of their own infantry and artillery. These cuirassiers appeared to them like guardian angels. With the most perfect calm every man halted on the spot where he stood and fired at the cuirassiers, who were soon swept away by the rapid fire.

With regard to the charge of the French cavalry on the Prussian infantry at Vionville (Official Account, vol. i. p. 379) I was told by an eyewitness, who, as he commanded a regiment, had trotted up to the support of the infantry who were charged, but found that his assistance was not needed, and who had thus the opportunity of closely observing the contest, that he noticed to his great delight how bravely his comrades of the infantry stood their ground, and how scarcely any of them were ridden down; but that, as a cavalryman, his heart bled at the sight of the absolute powerlessness of the brave French cavalry against the calm and stubborn infantry, who did not even form a square, but remained in the formation in which they happened to be, and quietly poured in their fire. The French cuirassiers of the Guard, well

mounted, well equipped, and capably led, charged in excellent order and with the greatest possible exactness and courage. But their splendid horses fell in masses under the well-aimed fire. The centre of the line of the cuirassiers, which went straight at the infantry, was annihilated. Then the two wings swung away from each other, were fired on as they passed by the battalion, and then ran the gauntlet of the skirmishers and supports. Thus, in a few minutes, nothing remained of this magnificent regiment of cavalry but a few scattered troopers, who had scarcely succeeded in cutting down a single infantry soldier.

The failure of the brave French cavalry, who, at the battle of Sedan (Official Account, vol. ii. p. 373), endeavoured to cut their way through the Prussian infantry in the neighbourhood of Fleigneux, is a still stronger proof of the want of power of cavalry. It is true that they rode down part of the Prussian lines of skirmishers, but they did them little harm, for the skirmishers fired to the rear on the troopers, who then broke up against the supports; and the whole of the cavalry were destroyed. The Prussian infantry were delayed in their attack for but a short time. Gallifet's cavalry saved their honour, but had no influence whatever on the course of the battle.

In the same battle I had an opportunity of seeing a charge of Prussian cavalry on French infantry. The latter showed no hesitation; on the contrary, they ran into the quarry of the "Calvary" of Illy to meet the Prussian cavalry, and from there opened such a rapid fire with their chassépots that our cavalry could not press on. Our shells certainly obliged the French infantry to fall back, but we

were not able to open fire until such a distance separated friend from foe that we could fire without risk to the former. The charge as a charge was a failure.

If we sum up the experience which has been gained, we may say, that successful charges of cavalry on infantry, on a large and on a small scale, have succeeded in the latest wars, and may still be successful, even when the cavalry is inferior in number to the others. But as a rule such charges can be crowned with victory only when the enemy's infantry, owing to surprise, stress of battle, a mishap or some other cause, has lost somewhat of their power of resistance. A frontal charge against intact infantry will seldom succeed. The episodes in the battle of Custoza, where, at Villafranca and Mongabía, cavalry obtained such astonishing success against intact infantry, must be explained by the fact that this infantry, for some reason or other, had not the full value of intact troops. But precisely because the attacking cavalry cannot be certain beforehand with regard to this point, the charge of cavalry against intact infantry ought not to be condemned in principle, and should certainly be commended when the condition of the action is such that the cavalry, even if it be sacrificed altogether, does such service to the whole army as is out of proportion to the loss which it suffers ; for example, as at Mongabía and at Vionville.

We see, moreover, that cavalry charges, if they break out from the front of their own infantry and mask the fire of the latter, enable the infantry which is charged to gain time, owing to the cessation of

this fire, to recover their formation ; and that they are thus not only (as at Wörth) without result, but are even of advantage to the enemy's infantry. They have on the other hand a greater chance of success, when they start so far on the flank of their own infantry (Bredow at Vionville), that the infantry and artillery can continue to fire up to the moment of onslaught, and can thus do their utmost to increase the destruction of the enemy's infantry. Cavalry should therefore always endeavour, when they propose to join in a contest carried on by the other arms, to start from the flank of their own fighting line and to charge the flank of the enemy's line, and thus to give as much opportunity as possible for the fire of their own troops to take effect.

One of our most talented Generals, Baron von Wechmar (whom, alas, we have lost only too soon), proposed to employ the divisional cavalry in the following manner : he wished it to push forward through the intervals of its own infantry, as the latter advanced to the attack, in order to draw the fire of the enemy upon itself, and thus to favour the progress of the infantry. I cannot reconcile myself to this idea of my most valued comrade, for I cannot help fearing that this would result only in a useless slaughter of our cavalry, in consequence of which the infantry would, perhaps, be thrown into disorder by the retreating horsemen. My objection to it is strengthened by the conviction that it is impossible to expect much from the charge of a body of troops which have been committed to an attack which is certain not to succeed.

Wechmar's idea arose from his noticing, as I



myself have seen both in war and at the manœuvres, that the infantry frequently, while their cavalry is making a charge, quietly looks on and awaits the result, in place of quickly gaining ground and if possible assisting them, or at any rate hastening up in time to secure what success may be achieved. But this habit, or this *vis inertiae*, can be better done away with by instructing the infantry than by sacrificing the cavalry. But I am now rather wandering from my subject of to-day, and prefer to end my letter and to perhaps speak of this matter later on.

## LETTER VII

### THE PART WHICH CAVALRY WILL, IN FUTURE, PLAY IN THE ACTUAL BATTLE

THE difficulties which prevent cavalry from taking part in the combat of the other arms will tend to increase in the future, owing to the extension of the sphere of effect of firearms. For if cavalry are to watch for the moment when the enemy will be broken, and his infantry be no longer intact, they must lie in wait for it at the halt. But such a halt is impossible within reach of a destructive fire. The fire of shrapnel has, in these days, a range of 3300 yards, while that of infantry, though at 1350 yards it will make but a small percentage of hits on a small target, will at that range make it impossible for a large cavalry reserve in deep formation to remain long halted. Thus the cavalry masses which it is intended to use in battle must, supposing that the whole country is open to the view of the enemy, remain at a distance of almost a mile from the fighting line of his infantry, and more than two miles from his artillery, up to the time when it is considered that the moment for the charge has come. Since the fighting line of the enemy's infantry need be only a few hundred paces, and not a mile, in front

of his artillery (for infantry fire has now a very long range), we may say that, as a rule, cavalry must remain at a distance of two miles from the enemy, if they are to be held halted out of action.

But at a distance of two miles it is exceedingly hard to judge as to the condition of the enemy, and as to the favourable moment for taking part in the action. Thick clouds of smoke overspread the locality of the combat, lines are seen swaying backwards and forwards, hurrahs mingled with the clatter of the infantry fire and with the thunder of the guns create such a hubbub that the whole seems one long roll of sound, and it is impossible to judge at all as to the condition of the engagement. The infantry, which at first were regularly formed, break up into irregular knots and groups, and these are seen through the smoke to rush backwards and forwards, without any possibility of distinguishing which is friend and which enemy. Even if it be granted that the cavalry are aware when the right moment has come, they have then to ride two miles before they can actually charge the enemy. This distance will probably be increased by the roundabout way by which the cavalry will have to advance, for they must pass round a flank of the line of battle; while since it is impossible to tell beforehand on which flank they will be required, they will generally have been kept halted in rear of the centre. The total distance which they will have to traverse, including the changes of front and the wheels which must be made by a part of the force, will thus amount to about four and a half miles. Even if it be supposed that these movements be made at a gallop (440 yards in the minute), it will be eighteen minutes

before the cavalry reach the enemy ; while if the trot be taken as the ordinary pace for the movement of cavalry masses, the time required will be increased to more than half an hour. But in half an hour the action may have assumed quite a different phase. The enemy's infantry may have recovered their formation, their reserves may have come up, etc. etc. Sometimes in a battle hours pass by without any change, but there are times when each minute brings some variation. Such critical moments are the only ones in which cavalry can find an opportunity, or can gain a success. But how can they make use of this moment, when it takes them half an hour to arrive on the spot ?

Such things are the results of theories on a *tabula rasa*.

But no battlefield is a *tabula rasa*. Thus all theories which are thus based are useless. We may further say that the advance of the cavalry, and their consequent delay, will be yet longer if they have to pass defiles, to break off files and to deploy. But we find everywhere copses, small woods, hedges, and villages, in rear of which cavalry can remain unseen while halted closer to the enemy, who will do nothing, since he does not know that they are there. In the most exposed country there are always depressions, in which whole divisions might be hidden, and the existence of which the enemy will never guess, since he sees only a flat plain. I need only remind you of the well-known depression in the apparently level plain at Tempelhof, which has afforded an opportunity for many skilful manœuvres, and has proved a source of embarrassment to many Generals

who were strangers to Berlin. Such depressions can be most easily used for a sudden movement towards the enemy, when his attention has been drawn off in another direction by the course of the action.

During some divisional manœuvres against a skeleton enemy, I had commenced an offensive action against a position, and had brought the whole division gradually into the engagement. The cavalry, of the strength of 10 squadrons, made use of a depression of this kind for the purpose of creeping near under cover, and surprised the most exposed flank of the enemy's infantry by such a decisive charge that, not only these, but even the General commanding the corps (who had been present when the cavalry had started four miles farther back, and had then galloped on into the enemy's position in order to watch the fight), was so astonished that he thought the cavalry must have risen out of the earth. On another occasion I was ordered to attack an enemy who stood in a commanding position, almost like a fortress. While advancing over the low ground I came upon a similar depression, which hid my troops even over the spikes of their helmets. While my advanced-guard and my artillery were keeping the front of the enemy employed, I succeeded in passing the main body of my division along this hollow and reached the enemy's right flank before he discovered me. The hostile General told me himself that he and all his staff had searched the country with their field-glasses, and wondered whether my division had not sunk into the earth.

Circumstances are very different in a battle, during which the attention of the enemy is far more

easily distracted by the falling shot than it is at manœuvres with their mere movements and blank fire. At one time, during the battle of Königgrätz, I stood on the heights between Maslowed and Nedelist engaged with a line of artillery, which was posted on the hills between Chlum and Nedelist, and which the account, published at a later date by the enemy, reckoned as consisting of 120 guns. The range, judging by the bursts of our shell, was about 1300 to 1400 paces. Between the two lines of artillery lay a rather deep but open valley, which was, however, covered with corn of about the height of a man. Our skirmishing line advanced through this corn directly against the front of the enemy's colossal battery. The closed columns of our infantry followed them. The enemy's gunners were so entirely occupied with their action against our guns that they did not notice our skirmishers in the corn, and did not fire a shot at them. At last the battalions of our third line, who were massed, attracted their attention, and this the more because they, as their prisoners told me afterwards, were astonished that the Prussian infantry should thus advance in mass, as if on parade, within the range of the enemy's artillery; as they were about to open fire on them, the deadly rapid fire of our skirmishers began at very short range in their immediate front and struck down horses and gun detachments, so that in a few minutes our first line had taken possession of 65 guns. The rest fled. The position was captured.

If strong skirmishing lines can thus advance directly against the enemy over country which is apparently devoid of cover, cavalry can undoubtedly

do the like if, by making use of the lie of the ground, they can gain the enemy's flank. But certainly if (as I saw in the case of the French cavalry at St. Privat, in the afternoon, quite close to the north of the road from Ste. Marie aux Chênes to St. Privat) cavalry is pushed forward into the centre of the front of their own line of battle, while the latter is firing, and, as it were, offers itself to the enemy, making movements under the concentrated infantry and artillery fire of nearly an army corps, it cannot in that case accomplish its purpose, but must fall back in confusion out of the zone of fire. Again any cavalry must meet with the same fate which tries to advance out of a defile and to deploy when immediately in front of a line which is firing on them; and yet this is what a cavalry division tried to do as it advanced by the high road from Metz to St. Privat towards evening, while we were still struggling for the possession of that village. My batteries, posted on the heights between St. Privat and Amanvillers, took advantage of the halt of the head of the enemy's column, which was made with the object of deploying, and fired deliberately at it at a range of 1900 paces. Then followed a rapid fire of from 30 to 40 guns, and in a few minutes the whole mass of cavalry burst asunder and fled. The same lesson was learnt by the 1st Prussian Cavalry Division at the ravine in front of Gravelotte. Cavalry who advance thus out of the front of the line of battle make themselves prematurely obvious to the enemy, and oblige him to accompany their whole advance with a hail of bullets, which necessarily sweeps them away before they can get near enough

to strike. But if cavalry move against a wing, while the enemy's attention is occupied along the whole front, if they choose their road to, and their point of attack on, the flank in such a manner that their own infantry and artillery can fire on that point up to the moment of actual contact with the enemy, it is then probable that they may surprise the enemy and obtain a success, even though the ground may not offer altogether sufficient cover.

There is also another element which offers favourable chances to cavalry. Not only does the combat, when it has become hot and critical, rivet the attention of the enemy, and thus divert it from the cavalry as they move about in reserve, so that they may perhaps not be noticed or, if they are observed, may not be reported to the Staff of the enemy; but it is even possible that the enemy may be quite unable to direct his fire upon them. The most favourable time for cavalry to take a decisive part in an action is certainly that, when both sides are striving for the victory with their last available forces. Then the infantry soldier fires at that man of the enemy whose shots he hears whistling about his head.

The two artilleries are beating each other down, and are unwilling to spare a battery or a single gun, since either might turn the scale; or perhaps the artillery has received an order to prepare a breach for the assault of the infantry; or it may be that it has to collect its whole strength against a threatening infantry attack. In short, both the other arms have, at the critical moment, other nearer and for the instant more important objects for their fire than



that cavalry which is moving in rear in the reserve. At such times the cavalry, even if it be visible, can advance close up without danger; they need no longer hold back out of the reach of the fire of the other arms of the enemy, since he has far more important things to do than to fire on them, and they thus, even at short ranges, run less risk than when they are the only target for the enemy's bullets. The cavalry will certainly prefer not to stand in rear of the other troops in action, but rather in echelon on a flank, since thus they will cease to form the, so to speak, butt of the target offered by the others. But there is not much danger in being the butt, provided that they do not stand less than 500 paces from the second lines of the infantry. There will be a few casualties from bullets which, being aimed high, may fall among the cavalry; but no one, in these days, is quite safe anywhere in battle. So long, therefore, as it is not quite certain on which wing the cavalry may be required, it is better to allow them to follow in rear of the centre. On the other hand, the nearer the decisive moment approaches, the more clearly will it be evident upon which wing the cavalry will be employed. As soon as the general situation of the action makes this point certain, the cavalry should be directed thither, and echeloned on that flank.

Too much care cannot be taken to prevent the cavalry from going to too wide a distance from the scene of battle. They always have a great inclination to this fault, for two reasons: first, from the natural desire which every good soldier has for the greatest possible independence; and secondly, on

account of a correct appreciation of their task, since in this way they can more easily attack the enemy's flank. But a position at too great a distance from the flank is undesirable, since in that case an order will not reach them quickly enough, and thus the favourable moment for the charge may pass while the order for it is on its way to them. The ideal position for cavalry is that where their leaders can stand near to the Commander-in-Chief, and may thus receive from his lips the order to act, while, at the same time, they are not too far from their own troops.

But it must not be imagined that the General simply orders a charge which takes place at once. On the contrary, it is as follows: the General sees that the moment has come in which he can make use of his cavalry. He then sends off his cavalry leader, after giving him oral instructions as to his object, and the duty which his force is to carry out. From this moment he must leave all the rest to the cavalry commander. *He* leads his masses, under cover of the ground towards the flank of the enemy, waits there until the wished-for situation of the enemy has come about, and then (like Seydlitz, who used to throw his pipe up into the air) calls his cavalry to the charge by some sign which has been previously agreed upon. I, at the beginning of this letter, spoke of the *tabula rasa*, and said that it would be difficult, when at a distance of two miles, to fully acquaint oneself with the situation of the enemy, or to make a good choice of the favourable moment for a charge; but, in practice, things are entirely different, owing to the excitement which affects every one during a battle. When the struggle is raging hotly along the whole line

it often happens that one or two individual horsemen will quite escape notice, since all attention is entirely directed towards the enemy's masses. In my own experience I remember some striking examples of this fact. I at one time rode up to some infantry, who appeared to me to be falling back before the enemy in the direction of the left flank of my artillery position. With the object of asking the Commander to cover my flank, I went towards this infantry, keeping my attention all the time on the action of my batteries. All at once my orderly officer drew my attention to the fact that we were in the middle of the enemy's skirmishing line. I recognised, though I am slightly shortsighted, in the battalion which followed this line, the faces of some of the officers whom I had two years before entertained in my barracks. But the enemy's light infantry did not deign to notice me. It was not until I galloped back as hard as I could to my own men that I heard the bullets whistle after me.

During the same battle a detachment of the enemy's cavalry, much to our surprise and their own, approached very near to our flank and rear. The leader, riding in front, was only about 50 paces from us when they received our infantry and artillery fire. I saw the Major of hussars fall with his horse; the horse was killed. The hussars were dispersed and entirely broken up. No one paid any attention to the Major who had been shot; we had plenty of other things to do. I heard later that he pulled himself out from under his horse without a scratch, and passed on foot through our troops to his own men. During the battle of Sedan, while the long cannonade

was going on, a battery appeared which enfiladed our line of artillery. General von Pape and I, judging by the position of the battery and the manner in which its shells burst on impact, came to the conclusion that it must be a German, probably a Saxon battery. He, thereupon, sent his Adjutant, Von Runstädt, with two hussars, to tell them of their mistake. He rode up through a defile into the battery, and found himself in the middle of the French. But the enemy did not notice him or fire on him until he galloped back. All three riders got back without hurt, and only one horse was hit. I could relate many cases, which have been told to me, in which single horsemen have watched the enemy from the very shortest distances without attracting his attention; and the hotter the fight the easier was this to do.

A skilled cavalry leader who has good sight will thus almost certainly find an opportunity to get personally quite close to the enemy, and to choose the favourable moment for his charge. If he does this, the Commander-in-Chief must leave everything in his hands, as to the moment which he should select; and, with regard to this choice, no rule can be laid down.

On the other hand, the Commander-in-Chief will do well not to let his cavalry leader get out of hand too soon; he must keep his hold upon him, not only until he knows upon which flank he wants to use him, but also so long as he is not certain whether he may not want him to support his own centre. Let us suppose that the enemy's centre breaks through the centre of our infantry fighting line. When this has taken place the enemy will scarcely be in a good condition

to press on with ordered ranks. If our cavalry can now surprise them, fired on as they will be from both flanks, they are certain to ride over them and restore the action. This idea influenced our leaders at Vionville, when they held back a portion of the cavalry, as a sort of second line, in rear of the thin lines of infantry of the III. Corps, and employed only a part of the 5th Cavalry Division, and such divisional cavalry as happened to be at hand, in the great cavalry struggle on the left wing.

Since, during the latter part of the war of 1870-71, the cavalry was not used in masses or for decisive charges, some people have come to the conclusion that they cannot, as a rule, be so used. But the circumstances of the later campaigns of this war were so abnormal, that no rules for the employment of the arms can be deduced from them. The enemy was frequently four times as numerous as we, and possessed, moreover, an infantry weapon which had three times the range of ours. The front of his army covered so much ground that our infantry lines, let them fight in as open an order as they pleased, were always outflanked. Thus our cavalry, which was superior in number to that of the enemy, were of necessity detached wide to a flank, in order to keep the wings of the enemy's infantry in check, and to hinder them from enveloping the flank of our infantry. No cavalry could perform this duty, except in the case where they were engaged with an enemy whose hastily collected and undrilled masses had not the full value of regular troops. But since the cavalry were busy demonstrating against the extended wings of the enemy, they obviously could not be in a position

to make a charge at the decisive moment at the centre of the line. Yet some right excellent cavalry charges were made ; for example, Colomb's attack at Poupry, and the charges of some regiments at Orleans. Later on, in December and January, the efficiency of the cavalry was lessened by the snow and ice, and they could be used only for demonstrations and for reconnaissance. This was the case in the campaigns on the Hallue, at Bapaume, and St. Quentin, in the second campaign of the Loire, which ended with the battle of Le Mans, and in Werder's campaign with its battle on the Lisaine. But such periods are exceptional. Unfortunately, these experiences, since they were the last, and therefore the most clearly remembered, have put an idea into many people's heads that cavalry will have to be principally used as mounted infantry.

Judging by the experience of war, I have, up to the present, come to the conclusion that the part played by the cavalry in an offensive battle may yet, in spite of the extension of the sphere of the effect of fire of the other arms, be under certain circumstances of a most decisive character ; but I consider the chances for cavalry in a defensive battle to be yet more favourable. According to theory cavalry must, under certain circumstances, in an offensive battle, advance over at least four miles at a rapid pace before it can deliver its charge. This distance will be considerably less when acting on the defensive, since the cavalry masses can be posted much nearer to the spot selected for the attack. In the majority of cases, the character of the ground and the general situation clearly point out beforehand the place where the

cavalry will be able to carry out their charge. There is no difficulty, when selecting a defensive position, in studying the probable scene of the charge with reference to its practicability. The cavalry masses can be posted close to the spot selected, and under cover, and be let loose at the right moment. The distance of their position from the field of battle is not so great as in the offensive, since the battle tends to approach them ; and when the fight is hot, when the effect of fire becomes annihilating, that is the very moment when no one will fire on them, since every one is occupied with other matters. But in exact proportion to the diminution of the time required for them to ride up is the ease with which advantage may be taken of the proper moment for action, while the position is, as a rule, a commanding crest, from which the movements of the assailant can be observed, and behind which the cavalry can watch, from under cover, for their opportunity. It is thus easier to judge of the condition of the enemy, and to take advantage of any looseness in his formation. It will often happen that but a few minutes will elapse between the decision to act and the deed. If the charge is to be decisive, the cavalry must, as in the offensive, pass round their own and fall upon the enemy's flank, in order not to mask the fire of their own troops, and also to make full use of it.

Little experience with regard to the employment of cavalry on the defensive can be gleaned from the last war. We fought too few defensive battles for this. In the defensive actions which took place during the blockades of Metz and Paris (Noisseville, Le Bourget, and Mont Valérien), our closed lines,

fortified and connected as they were by walls and trenches, together with the proximity of the enemy's fortress to our front, afforded no opportunity to the cavalry masses: while, during the operations on the Lisaine, the slippery ice put a stop to all cavalry attacks. We may, however, class the following as cavalry attacks on the defensive; the charge of Bredow's brigade at Vionville, and that of the dragoons of the Guard at Mars-la-Tour, as also Colomb's charge at Poupry. But they were not such in the fullest sense of the word, since these battles were not really defensive actions, in which the cavalry could be posted in readiness beforehand; it was only that the situation of the moment, as the fight swayed backwards and forwards, took the form of an improvised defence.

In the battle of Königgrätz, however, we find such a defensive cavalry attack carried out on a grand scale by our enemy. In that action the Austrian cavalry, in spite of breechloaders, needle-guns, and rifled field-guns, succeeded in riding forward in closed masses to the charge. This plainly showed how great is the superiority of cavalry in the defence. The Austrian cavalry were able, at first, to move forward in considerable masses, and to beat back, by the weight of their impact, the few Prussian regiments, which advanced from a distance, in succession, through the defiles; and this continued until the mass of the Prussian cavalry gradually increased. But by that time the object of the Austrian cavalry had been attained; they had saved their infantry. A wider interval now separated the two lines of battle, and this was swept by the fire of a colossal line of



artillery which the Austrians had, in the meantime, brought into action, and thus the Austrian battalions, which had been flying in disorder, were able to find safety under cover of the fortress of Königrätz, never again to fall within the reach of the victorious Prussian infantry. That these Austrian cavalry charges did not change the battle into a victory was due to the fact that it was impossible to deliver them from round their flank, and thus to make use of the fire of their own troops up to the last; this was partly because the ground was not suitable, and partly because this fire had almost entirely ceased.

From all that I have stated in this long letter I draw the conclusion that cavalry will, in the future also, be able to play a decisive part in battle, if they be led in such a manner that they can break out round a flank, and can thus, up to the last moment, take advantage of the fire effect of their own line of battle. But to do so will sometimes require from the cavalry that they shall be able to advance as much as four miles, at a rapid pace, before they deliver their charge. Can they do this? They must be able to do it if they are to be of any use as cavalry in battle. And they can do it, if the horses are properly trained and are in condition. When I, as commanding a division, inspected individual squadrons, I made them, after they had carried out their movements in full marching order at the regulation trot, perform the same movements at the regulation gallop; this latter pace they had to keep up for at least six minutes. Many squadrons were able to gallop for ten or eleven consecutive minutes. Immediately after this I made them execute the long regulation

charge, after which followed a charge in extended order ; I then allowed them to dismount and inspected the horses, in order to see if any of them were distressed. With all this they had trotted and galloped more than four miles, had charged at the end of it, and were still thoroughly fit for action. I will, on a later page, write a few lines to tell you how this is to be managed.

## LETTER VIII

### A GLANCE AT THE FUTURE DUTIES OF CAVALRY

THE objections which you raise to the contents of my last letter are not so much arguments against what I have said as they are corollaries to my deductions. For I am entirely of your opinion that, owing to the extension of the sphere of effect of fire-arms, the efficiency of cavalry in battle has undergone a considerable diminution. Who can possibly deny that this is a fact? At the battle of Königgrätz the daring attack of the Austrian cavalry in close order broke up about Langenhof before the fire of the Prussian infantry, and came to an entire end; this check afforded many Prussian regiments, who were hurrying up, time to arrive on the ground, to charge, to obtain the superiority, and to drive back the Austrian cavalry. But the Prussian cavalry lines, for their part, had to cease their pursuit as soon as they came upon unbroken (Saxon) battalions who were ready for action, and upon a line of artillery firing from a position. In the last century a charge like that of the Austrians would have forced back the Prussian cavalry upon their infantry, would have cleared the ground as far as the Bistritz, would have met the Prussian cavalry regiments which were

coming up through the defiles over the Bistritz, and would have driven them back into the stream. If, on the other hand, the remaining Prussian regiments had been able to cross the stream and to deploy at the right time, they would have forced back the Austrian cavalry, and in their charge would have ridden down everything, cavalry, infantry, and artillery, as far as the Elbe, everything in short which had not reached the cover of the fortress. It is true that Bredow's brigade at Vionville broke into the line of battle of the infantry and artillery, and were only driven out by the enemy's cavalry, which were superior in number; but the latter did not dare to continue the pursuit up to the Prussian line of battle; while the French cuirassiers of the Guard, who at another point ventured to do this, were swept away by companies of infantry in extended order. The Prussian dragoons of the Guard at Mars-la-Tour certainly forced their way into the masses of the French infantry, and brought them to a standstill, but they could obtain no further success. No trophies, no crowds of prisoners, crowned their valour, as would have been the case in the last century. And though the great cavalry fight to the west of Mars-la-Tour was decided in favour of the Prussians, who remained in possession of the field, yet they could not, like Seydlitz at Zorndorf, fall upon the right flank of the French infantry, but were compelled to be content with having threatened them, with having brought them to a halt, and with having cleared a wider space between the fighting lines, thus re-establishing the balance of the conflict.

The times of gigantic cavalry successes, such as

those at Rossbach, Leuthen, and Zorndorf, are for ever past, but there is still opportunity for as brave deeds as these. For if we put aside the glamour of success, it is hard to decide to which the prize of valour should be given; to Seydlitz's charge at Rossbach with swarms of cavalry, who, knowing their leader's superiority in skill, looked with contempt on the army of the Empire, poorly organised and badly led, and regarded it as a certain prey; or to Bredow's charge at Vionville and Auerswald's at Mars-la-Tour, where the cavalry dashed into the rapid fire of the chassépots (which was believed to be irresistible), for the purpose of saving their own infantry. In any case we must own that the spirit of self-sacrifice shown by the cavalry of 1870-71 ranks as high as that of the cavalry of the Seven Years' War.

But the warmest advocate in favour of cavalry must acknowledge that their efficiency in battle ceases when they come in contact with infantry, which they have not been able to surprise, and which is intact, well drilled, well led, and unbroken in morale.

The great diminution which has thus befallen the cavalry with regard to their value in battle, makes it necessary to shift the standard of their importance, and to regard it with reference to the pursuit, and to their duties on reconnaissance and outposts.

The experiences of the great war tell us exactly how much to expect of cavalry in this respect, and what we can demand from them; for I must not neglect to remind you that it is very dangerous to demand more than can be expected of any one, since

we thus give ourselves over to illusions, which must be followed by the most bitter disappointment.

With respect to the pursuit, I have already said that during the last war this duty was often rendered futile by circumstances, especially in cases where, after the surrender of entire armies, nothing remained to pursue. But in many of the actions the cavalry did their duty in this respect also, where, as at Wörth and Orleans, it was a question of pursuing during the battle. The numbers of prisoners and trophies which they brought back are sufficient evidence of this. No rules can be laid down on this subject. The greater the range of firearms is, the less chance have the cavalry, when ordered to pursue, of judging of the condition of the enemy, since by reason of this the two combatants will remain very far apart, and it thus becomes most difficult to obtain any idea as to the situation of the enemy's army. Cavalry will therefore hunt down and glean up the disordered and flying swarms, which have lost their discipline, their order and their morale, until at last they come in contact with the formed troops, which, posted as a rearguard, will cover the retreat of the disorganised portion of the army. The more trophies and prisoners the cavalry have already collected, the earlier will this end to the pursuit arrive, since their capture causes delay, while the cavalry will be weakened by the detachment of the escorts for their booty.

When the direct pursuit has come to an end, and certainly when it has been pressed on so far that the infantry who are following up are not in a position to force it on, the indirect pursuit begins; this is

carried out by threatening the flanks of the beaten army, in order to compel it to continue its demoralising retreat without rest or reorganisation, until at length fresh forces of the enemy bring this action also to a halt. It is impossible to lay down in theory how much with regard to this can be demanded or expected of the cavalry, since the circumstances will vary in each case. Practically our cavalry did so much that they astonished us at the time.

Many writers have complained of the want of pursuit after the battle of Wörth. MacMahon's army did not draw breath until it (in part with the assistance of railways) arrived at Châlons, at a distance from Wörth of nearly 150 miles as the crow flies. But the cavalry of the III. Army, who were in pursuit of them, were retained in the neighbourhood of the Meuse, until the struggle with Bazaine's main army had been decided. They thus lost all touch of the enemy.

But after the engagements of Ardenay and Orleans and the capture of the latter city on the 11th of October, the 2d and 4th Cavalry Divisions pursued for 36 miles, as far as the Sauldre and towards Blois and Marchénoir, at which places fresh infantry forces of the enemy brought their advance to an end.

On one occasion only in this war, after the loss of the battle of Coulmiers, had our cavalry any occasion to perform the opposite duty of putting a stop to a pursuit by the enemy. It is scarcely necessary to mention how well they fulfilled this object. (See the Official Account, Part II., 12th section, p. 279, *et seq.*)

It is worth while to imagine what course the operations would have taken, if the French had at Coulmiers had more cavalry than the Prussians, had driven back the latter, and had placed the strong French army in a position to continue their advance on Paris, instead of halting for three weeks in rear of the forest of Orleans; then we shall be able to form an opinion as to the value and the rôle of cavalry.

But even in carrying out a pursuit we find that cavalry are, in certain respects, less efficient than they were in former times. After the battle of Leuthen the cavalry of our great King swept Silesia, and even Upper Silesia, clean of the enemy who had penetrated there. In our later wars the pursuit by cavalry came to a stop as soon as they lost the certainty that they were followed by the infantry, to whom they looked for support, with whom they had to keep up communication, and who must again have attacked and broken up the enemy, if he had shown any appearance of an intention to hold his ground. Thus after the battle of Wörth the cavalry of the III. Army remained in the neighbourhood of the Meuse, because the army was to halt there, and the Commander-in-Chief did not venture to send forward the cavalry divisions by themselves yet farther into the heart of France, where they would be molested on every side by *francs-tireurs*, *gardes-mobiles*, and the newly-formed bodies of troops. In the same manner Von der Tann, when he had determined, about the middle of October, to remain with his detachment in Orleans, would not allow the cavalry to advance farther to the front than towards the forest of Marchénoir and Blois



to the west, and to Salbris on the Sauldre to the south. A dash upon Vierzon, or even Bourges, with the object of destroying the workshops which supplied their very life-blood to the newly-formed corps, was considered to be impossible. We find that, as a rule, the cavalry divisions did not advance farther than from two to three days' march from the main army when the latter was halted, and but very unwillingly gave up their communication with it to the rear. Many voices have been heard which have, on this account, imputed blame to our cavalry. Even writers from the ranks of the cavalry have reproached them in this matter (see the 11th and 12th supplements of the *Militär-Wochenblatt*). I will more closely examine these reproaches in my next letter, and will here only remark that they should be addressed to the commanders of our armies, since the cavalry divisions pressed on as far as they were ordered by the Commander-in-Chief or by the commanders of armies to advance. These officers, no doubt, had very good reasons for not sending on the divisions so far that they would have lost all communication with the army. If the divisions are to remain in communication with the army, then a distance of from two to three days' march may be taken, on various grounds, as the maximum. The proximity of the infantry, and the possibility of their immediate presence, will restrain the inhabitants, if they are hostilely disposed, from carrying off orderlies, patrols, etc.; cavalry acting alone cannot dispense with firearms, their horse artillery and their carbines will be frequently in demand, and a reserve of ammunition is necessary, for without it cavalry

may readily find themselves powerless against quite small detachments of infantry.

Again, as regards the information which the advanced cavalry should send in with respect to the enemy, it is of great importance that it should arrive at headquarters during the night following the day on which the foremost scouts obtained it. This will scarcely be possible, if the distance is over 45 miles. But this matter properly belongs to the consideration of the other duties of cavalry, reconnaissance and outpost duty. We learnt practically in the last campaign that our cavalry, brilliantly as they carried out their task, were indeed seldom more than three days' march in front of the army. The cavalry which were the most advanced were perhaps those of the III. Army and of the army of the Meuse, when they moved, after the battle of St. Privat, in the direction of Châlons. At the time when the scouts and the leading patrols ascertained (on the 24th of August) that the camp at Châlons had been abandoned, they were distant between 40 and 45 miles from their corps. But this distance must naturally be diminished when the cavalry, owing to the proximity of the enemy, meet with resistance and delay. When the army was arriving before Paris the heads of the cavalry columns were only from 27 to 30 miles (as the crow flies) from their corps.

But the extent of the zone which cavalry acting alone can reconnoître and hold is still more diminished, when a lengthened halt of the army gives time and opportunity to the enemy to plan enterprises against the isolated cavalry. We find that it was, on this account, necessary in every case, where cavalry had

to cover the rear of an investing army, to push our infantry after them to serve as a support. Thus the latter were sent into Normandy as far as the Epte, and towards the west to Dreux and Rambouillet. We find then that in the long run cavalry can be independent only when it is employed in connection with infantry, just as on the other hand infantry never feels itself secure unless it is in connection with cavalry. The reciprocal support of the arms is in these days more necessary than ever.

Against all the principles and rules which we have deduced from the last campaigns with regard to the employment of cavalry, it may with apparent justice be argued, that the circumstances connected with them were abnormal and that they must not be considered as fair examples, since the enemy did not make the same use of his cavalry as we did. During the first part of the war, up to the time of the catastrophe of Sedan, the French leaders always held back their cavalry and preserved them for use in the battle. It never happened that a French cavalry division was sent forward far in front of the army for the purpose of reconnoitring; and it must be acknowledged that circumstances might have turned out very differently, if the French had used their cavalry as much as the Germans. The duties of the German cavalry would then have been rendered much more arduous. But this fact does not affect the correctness of principles. If the French cavalry had been as skilfully employed as were the German, the result would have been such as will be seen in future, when the cavalry forces of both contending armies shall be properly used.

Then both armies will send their great masses of cavalry to the front, in order to push out their antennæ, the officer's patrols, and to ascertain the strength, position, and designs of the enemy. These masses will come in contact, and will fight for the command of the ground. At last, after a struggle, one of the two cavalries will get the upper hand, and will drive back its enemies upon their infantry, and will thus be then in a position to ensure to its leader a strategical preponderance, such as the German cavalry won for their generals in the last war.

When the operations have led up to the decisive battle, then the cavalry, which will at the beginning be drawn back in rear of the two other arms, will perhaps desire to take its share in the decisive action. If the cavalry of both sides select the best point and moment for their charge, they will again come in contact with each other, and neither of them will be in a position to produce any effect upon the remaining arms until one has been driven off the field.

The victor will then endeavour to make full use of his victory by means of a pursuit, while the weaker will strive to cover his retreat. If the latter, after the two earlier contests, can still dispose of some closed bodies of cavalry, he will prefer to use these rather than the other arms, while the pursuing victor cannot do much against the latter until he has first overcome the cavalry.

When the direct pursuit has come to an end, the cavalry of the losing side will have the further task of holding back the indirect pursuit, to which the victor will then have recourse, and of delaying it, as

far as their numerical inferiority will permit, by skilful manoeuvring.

Of the four different cases which we have mentioned, in two only will the cavalry divisions be called upon to charge the other arms, and then only after they have first defeated the enemy's cavalry ; in the other two cases purely cavalry engagements will take place. It is, therefore, extremely probable that cavalry will always at first find the enemy's cavalry opposed to it, even when it endeavours to make, and eventually succeeds in making, a charge on the other arms ; while in most battles it will be able to attain that object only after a combat of cavalry against cavalry.

How the critics will then cry out, after the event, about useless cavalry duels, about private combats which the cavalry have fought for their own sake, and about their fighting without any reference to the whole force ! As if the leaders had any choice, and could avoid such actions, and as if they were not of necessity brought about by the nature of things ! Or perhaps these critics will insist that in the next war our cavalry, in order to avoid such cavalry duels, shall run away before the enemy, shall hide themselves behind the infantry, shall allow the enemy to roam at will over the whole of the ground which he wishes to observe, and shall thus from the very beginning, without a struggle, give up to him all strategical superiority. If this were done, the cavalry would then justly incur the most bitter criticism, for it would be entirely owing to their fault that our leaders would have to fight blindfolded.

## LETTER IX

### UGHT CAVALRY RAIDS TO HAVE BEEN MADE IN 1870-71?

IF I should fulfil the promise given in my last letter, and examine into the complaints which were made of the action of the cavalry divisions in the Loire campaign of 1870, namely, that whenever the army halted they halted also, and did not "press on with far-reaching effect into the heart of the country, and thus break up the mobilisation" (*Militär-Wochenblatt*, p. 519 of the 11th and 12th Appendix of 1881), I should be compelled to speak of the cavalry exploits which were, during the American War of Secession, known by the name of "Raids"; these caused much astonishment and won much renown. Whose heart does not beat quicker as he reads *Two Years in the Saddle* (written by Heros von Borcke, and translated from the English by Kähler), and who does not feel what a vein of poetry there is in such raids, during which great masses of cavalry working independently and relying on their own resources, rode over wide stretches of country, surprising the enemy by appearing on their flank or rear, and then disappeared again, to carry fear and confusion into some other of the hostile camps, and

to assist and encourage their friends. One thinks involuntarily of Wallenstein's trooper: "Free will I live, free will I die; None will I rob, I am no man's heir; and I look proudly down from my horse upon the rabble beneath me."

But poetry is beautiful only when it is based upon reality, otherwise it becomes mere caricature; for there is only one step from the sublime to the ridiculous. We must, therefore, consider these raids through the disenchanting spectacles of reality.

What is the proper military meaning of this new word "Raid"; as far as I know it has not yet been defined with sufficient precision. I understand it, judging by the various undertakings which have been so called, to mean an incursion made by a large mass of cavalry (after the fashion of the Free Corps of the war of Liberation in 1813), during which this force is not only made for a time independent of the regular command of the army, but is also unable to count upon any daily support from the latter, and is thus absolutely detached and left to itself, while its communications with its own troops are necessarily often temporarily cut by the enemy; being thus situated it proceeds, obeying the good pleasure of its leaders, to execute the duty which it may have been intended to carry out.

Since the majority of the above-mentioned critics declare that the German cavalry should have "broken up the mobilisation," they must have had in view some distinct object, which would have been worth the stake risked for it. For objectless galloping about through the enemy's mobilisation would have produced little effect. Even if here and there

a company or a battalion of peasants, marching perhaps to their place of rendezvous, had been broken up, that would not have been of much use at a time when Gambetta had collected 200,000 men under Aurelle de Paladines. Some of these people might have been cut down, if they had defended themselves; but if they had not resisted, they must have been allowed to run away again, for we do not kill defenceless men, and as for making them prisoners, there would have been no time for that. Even if the cavalry had perhaps surprised some formed battalions of the National Guard (of which they would not have found many), we must not forget that such troops can gain cover against cavalry in woods, villages, towns, marches, etc., while a cavalry division of 6 regiments can only supply 1400 dismounted combatants armed with carbines (one of 9 regiments, like the 5th, can supply 2000), and cannot thus expect to destroy a force of infantry of the strength of a regiment, when fighting in broken ground, even though that force be composed of people swept together from all directions.

Such cavalry divisions could, it is true, devastate the country, and burn defenceless villages and towns, etc. The civilised character of the German leaders forbids such proceedings. *Louvois dragonnades* have no place in any German military dictionary.

The "throwing themselves into the midst of the mobilisation" should have some other object which might exercise a decisive influence over the course of the war. Since such raids should certainly not be undertaken for the pleasure of making them, or in order to take masses of cavalry for a ride.



It is possible to conceive but one object for them ; namely, to reach the point of rendezvous of the newly formed troops, to drive away the men who had been collected there and to burn such *matériel* in clothing and arms as might have been collected.

I should like to ask at what moment during the war of 1870 such an undertaking could have been most easily carried out ; every intelligent soldier will answer that it was possible only at the time when France had lost the whole of her regular army, and had not yet recovered from the first shock of the catastrophe of Sedan ; that is to say, at the moment at which we appeared before Paris, and completed the investment of the capital.

As a matter of fact at this very time the 4th Cavalry Division did commence a movement of the kind. On the 25th of September, at Bazoches les Gallierandes, it came in contact with French troops of all arms ; on the 26th it drove away and pursued the enemy's heavy cavalry, and was received with musketry from the first houses of Chevilly ; it had to fall back from there with loss. An endeavour which was made to push forward by other roads ended in the discovery that the whole of the northern edge of the forest of Orleans was held by French infantry. "*A general advance of the masses of cavalry in this close country did not seem advisable ;*" the division took up its position at Thoury and Pithiviers.

Thus at this point an end was made to the "throwing themselves into the midst of the mobilisation" of the 4th Cavalry Division, since it met with resistance from forces composed of all three arms, which, even though they were newly raised, were yet

capable of regular action. Can the 4th Cavalry Division be blamed for allowing time to these troops to complete their formation? Certainly not. That they had had this time was due to the distance (186 miles) between Sedan and the forest of Orleans.

It was, therefore, necessary to break down the resistance of the enemy with the aid of the other arms; Von der Tann defeated the enemy at Artenay, and took Orleans on the 11th of October.

This would have been the very best time to carry out a raid into the heart of the enemy, and to break up his mobilisation. To the south and south-west of Paris objects were to be found which were worth the sacrifices which such a raid would have entailed. It was known that to the south the French had placed their gun-foundries and other manufactories in Bourges, and that these supplied the newly formed armies with war *matériel*. It would certainly have been worth while to make an expedition to Bourges.

But General von der Tann, a skilled old leader of partisans, and one accustomed to carry out such independent undertakings, did not consider his whole strength in all arms sufficient for such an exploit. He knew that he had in front of him, to the south of Orleans, the entire 15th French Corps, 4 divisions strong, which lay on the Sauldre, while at Gien and Blois the 16th Corps covered the flank of the position, and he, therefore, considered that he was bound to halt his infantry at Orleans. The 22d Division and the 4th Cavalry Division were then detached by him, with orders to clear all irregular troops out of Châteaudun and Chartres.

Ought then the 2d Cavalry Division and the

Bavarian cavalry to have attempted by themselves to take Bourges, a fortified place, which the whole of Von der Tann's detachment was not strong enough to capture? Bourges is about 62 miles from Orleans. What could one or perhaps two cavalry divisions have done there? Let us suppose that they succeeded in breaking through the extended position of the enemy's 15th Corps on the Sauldre, and in pushing on as far as Bourges. They would have arrived in front of that fortress after three days of hard riding and fighting. In the meanwhile the enemy, being warned by telegraph of what was passing, would have had sufficient time to have brought up from Tours, or from the south by Châteauroux and Issoudun, as many of the newly formed troops as the railways could carry; he could have massed them at Vierzon, sent them from there to the Sauldre, and, with the aid of the two divisions at Gien, could have occupied the passage over that river which the German cavalry had used, and could thus have taken them in a trap. It seems to me to be a mere dream that it could have been possible to take Bourges and destroy the workshops in this manner. Nothing would have been left to the cavalry after their vain effort but to have wandered about in the "sad Sologne"; after several fruitless attempts to force a road through the daily increasing superiority of the enemy, who, having the use of the telegraphs and the railways, would be beforehand with them everywhere, they would have been obliged to make their way over the Sauldre, or to the north-east over the Loire; all their ammunition would have been

expended, and they must have been miserably destroyed.

On the south-west of Orleans there was a second object for such a raid. If it had been possible to reach Tours at once, to seize the enemy's seat of government, and to disperse the members of it, the means of further resistance by the French would have been destroyed, or at least very much hampered, for the removal of a seat of government always causes great confusion.

But what do we read in the accurate Official Account? The road to Tours runs by Blois or by Vendôme. In Blois there were organised divisions, which had already, on the 20th of October, compelled General von der Tann to assume the defensive; while on the 18th of October, on the road to Vendôme, the 4th Cavalry Division had encountered, in the forest of Marchénoir, so stout a resistance from the inhabitants in arms, that it was reasonable to suppose that they had regular troops behind them which could not be beaten back by cavalry alone.

Le Mans offered another object for a raid, for there new armies were being formed and large stores of supplies were thus accumulated at that spot. As we have seen, the road from Orleans by Vendôme was closed. The expedition would have had, therefore, to be based on Dreux-Chartres, whence it could advance either by Nogent le Rotrou or by Alençon. As the troops were posted for the investment of Paris, this duty would have fallen to the 5th and 6th Cavalry Divisions. Can any one really believe that the town of Le Mans, in which whole armies were being organised, could in the middle of October 1870

have been taken by cavalry, even if all the 56 squadrons of the above divisions had appeared before it. I shall no doubt be told that at the beginning of the war Nancy opened its gates to the 4th Cavalry Division without firing a shot. But in Nancy there were no armies in course of organisation, and its population were still under the influence of their first fear, resulting from defeats which had been thought impossible. Since then two months had passed, and had been employed in training the new troops of the line, the battalions of *gardes-mobiles*, and the irregular levies. Since the fall of the Empire all minds had been much excited by the orders of the government of national defence. Every inhabitant who was physically fit had been invited to take up arms. Calumnies with regard to the behaviour of our troops had inflamed the passions of the population, and numberless armed bands opposed our troops wherever there was any chance of success. At the sight of our advancing cavalry they would perhaps have hidden their weapons, and have passed themselves off as harmless inhabitants, or they would have fled into the woods or to other broken ground by the side of the roads. But as soon as they had noticed that no infantry were following the cavalry, they would have blocked and barricaded the roads with the aid of labour officially demanded; they would further, with the help of the newly-formed troops from Normandy and Brittany, which could by means of the railway come quickly into position at Argentan, have cut off the retreat of our advanced cavalry, who would have been from 60 to 90 miles from any support. The bitter and protracted resist-

ance offered by the Chouans and the inhabitants of La Vendée to the large armies of the republic at the end of the last century teaches us how favourable that country is to a people's war.

I shall perhaps be told that the retreat of a compact body of cavalry cannot be cut off, if the men have been taught to ride over all kinds of broken ground, to climb mountains and to swim rivers. Our cavalry is undeniably remarkable in this respect, and has in later years yet more improved itself. But such an extraordinary power of overcoming obstacles can be expected only from small bodies of cavalry. It is impossible to hope for anything like this from large masses, such as are sent out to distances of from 60 to 90 miles, and are consequently intended to remain for a week or a fortnight beyond all communication with the army. Unless a cavalry division is provided with artillery it cannot fight with sufficient energy, especially if it has to force its way through villages and defiles; and guns cannot swim across rivers. Again a cavalry division, if it is to be independent for a week or a fortnight, cannot do without a certain amount of train. The *Ordre de Bataille* shows how in 1870 it was found necessary to attach to each cavalry division a provision column and either half a sanitary detachment or a field hospital. This will also be the case in the future. Especial care must be taken, when much fighting is expected, not to leave one's own wounded without aid. But a cavalry division, which is intended to undertake an independent raid, needs also a larger or a smaller ammunition column, since the rounds contained in the limbers and wagons of the artillery will not

suffice for several warm actions ; while the carbine ammunition which a cavalry regiment carries with it will be still earlier expended, since on such a raid it will often be necessary to fight on foot, and it would never do to run any risk of finding oneself, owing to want of carbine ammunition, absolutely defenceless in broken ground against the very smallest body of infantry. All this drags like a log at the heels of the cavalry when they are longing to carry out their raid on winged horses ; but they must take it with them, if they want not to fail, though it cannot vanish from the sight of the enemy so quickly and easily as the bold trooper with his well-trained and speedy horse.

Let us now inquire whether, at the time of the investment of Paris, there was any opportunity for a raid in a northerly direction. Rouen is the first point which one notices. Our cavalry which covered the rear of the army were advanced as far as the Epte, which forms the boundary of Normandy. They pushed on into that province, and by day kept the inhabitants in order. But they could not remain there at night. At the approach of the cavalry numberless armed men threw themselves into the extensive woods ; these would have fallen upon the cavalry by night. Even a mixed detachment composed of all arms was on one occasion (at Etrepigny) attacked at night.

Moving directly to the north we should come upon Amiens, where the enemy, covered by the citadel, was forming new troops, while the other fortresses in the neighbourhood, Soissons, La Fère, and Péronne, gave the enemy every opportunity of carrying out his

new organisation in places where no cavalry could reach them. When at a later date the above fortresses had been taken, the enemy found similar cover for his newly-formed troops in the fortresses which lay yet farther to the north.

Search as I may I can find no opportunity, during the whole duration of the long investment of Paris, for any raid of a large mass of cavalry, of one or more divisions, which would have offered any probability of sufficient success.

On the other hand, we had really no cavalry available to make a raid simply for the pleasure of doing so. In order to have carried out such an expedition it would have been necessary to have interrupted the other duties of the cavalry, such as their reconnaissance and outpost duty in rear of the army of investment.

When Von der Tann stopped the forward movement of his detachment and halted in Orleans, it was found necessary to withdraw the 22d Division and the 4th Cavalry Division from his command, in order to restrain the threatening dispositions of the enemy at Chartres and Châteaudun. He retained only the 2d Cavalry Division and the cavalry of his own Bavarian Corps. If with this force he had risked a raid on Bourges, he would have soon felt his poverty in cavalry, since the threatening movements against his right flank of the enemy in the forest of Marchénoir and about Blois in a short time compelled him to reduce the amount of his cavalry on the left bank of the Loire to a single brigade. What would he have done if he had disposed of the whole of his cavalry in an adventurous undertaking against



Bourges, and if the enemy then, as indeed he did at a later date, had attacked him in force from the west? Warned too late, as he would have been, of the enemy's movements, he could not have collected his troops at Coulmiers in time, and would, in place of being simply driven back at that place, have suffered a total defeat, have lost his line of retreat, and have undergone an absolute disaster.

Who could have undertaken the outpost duty in rear of the line of investment round Paris towards the north-west on the left bank of the Seine, if the 5th and 6th Cavalry Divisions had gone off on a raid against Le Mans, and had been at a distance of from 60 to 90 miles from the army? The whole success of the war would have been placed in jeopardy, if large masses from the newly-formed armies had taken us by surprise from Caen and had suddenly appeared in the neighbourhood of Versailles. We had a large amount of cavalry in France in 1870. They were, especially after the destruction of the excellent cavalry of the armies of Metz and Sedan, much more numerous and better than the enemy's horse. But we certainly had not too many of them. It was only by putting forth their utmost strength that they were able to discharge their duties with regard to the security of the other arms. There was perhaps only one brigade, that of the heavy cavalry of the Guard, which was not overworked at this time. Moreover, the divisional cavalry, even those belonging to the army of investment, were continually employed, and were so hard worked that at times they had to be relieved.

To have detached large masses of cavalry on

such an uncertain undertaking as a raid must always be, would have been liable to weaken and endanger the dearest and most vital interests of a logical system of war, and would moreover have been entirely wrong.

I cannot, therefore, agree with those who lament that no raids were undertaken by us during the war of 1870-71, and that no cavalry masses were detached "to throw themselves upon the mobilisation and the newly-formed troops." I am, on the contrary, of opinion that such undertakings could have had no prospect of success, and *that it was very wise not to attempt them.*

I may be told that such raids need not take as their goal the destruction of the centres of the enemy's army organisation, but might carry out exploits of smaller proportions, such as the destruction of railways and telegraphs, or of magazines, etc. But large masses of cavalry would not be used for such purposes; we should rather employ small bodies of horsemen, of a strength varying from an officer's patrol to a squadron, since these can more easily disappear or remain invisible. Very much was done in this respect during the campaigns of 1870-71. I need only refer to the early destruction of the railway and telegraph communication between Metz and Nancy (which I have already mentioned), which took place before the battles around Metz, and to the cutting of the railway between Montmédy and Thionville, which was carried out shortly after those actions.

## LETTER X

### ON RAIDS WHICH MAY BE MADE IN THE FUTURE WITH THE OBJECT OF DISTURBING THE ENEMY'S MOBILISATION

I FIND myself to-day obliged to contradict you on all the points in my last letter to which you object ; for you say that our cavalry, in the war of 1870-71, did not do all they might have done, since, if raids were successfully carried out in the American Civil War, it must have been possible to have done the same in our war also ; that, when cavalry have been further improved in equipment and by the supply of better firearms, as well as by progress in technical matters, for example in making temporary bridges, etc., raids will play an important part in any future war ; and that, if we do not make use of them from the beginning, the enemy will do so to our disadvantage.

There is no doubt that cases did occur in the war of 1870-71, when the cavalry did not do all that they might have done. I have already intimated as much. But this is true of the other arms, and will always be the case so long as men are only men. But I purposely do not intend to examine into particular examples. If any one has failed to do his

duty, the avenging Nemesis has certainly reached him before now. But if any one, especially at the beginning of the war, failed on account of want of knowledge or training, his own further experience schooled him afterwards, and he did better later on. There were many new things in the war of 1870 to which we had to get accustomed. We have had much to learn in other matters also, and have had to pay a yet higher price for our knowledge. I need only remind you of the formations in mass in which our infantry everywhere, at the beginning, entered the zone of the enemy's chassépot fire, and how we first learned from our enormous losses at how great a range this fire was almost annihilating. But a fault, especially if it be recognised as such, marks the rule as plainly as the exception does. And that which a wise leader does not do again is thereby owned to be a fault. But it is difficult to find in history any war of which the system of management has been better than was that which was prescribed to us in 1870-71. Our success was a proof of this, as is also the fact that all other armies now copy ours even in the smallest details. The method of war of the first Napoleon was, especially in his earlier campaigns, perhaps more daring, but in steady cool calculation it was surpassed by ours in 1870-71. This universal opinion increases my inclination to consider that we were right in principle in the use which we made of our cavalry, after we had obtained a little experience, even though here and there their performance did not come up to our expectations. Our supreme leaders would certainly not have been afraid to venture upon a far extended raid, such as

those which were carried out in America, if they could have anticipated any good result from it, any more than they hesitated to send Manteuffel's two corps over the snow and ice of the Côte d'Or, through the midst of innumerable enemies, and to place them in Bourbaki's rear. But the successes of 1870-71, great as they were, do not forbid us to make a free and unprejudiced examination, and a thinking man will not allow his independent judgment to be disturbed by them, nor will he accept everything which was then done as authoritatively right.

Though I have examined this matter freely and independently I cannot, as I have said in my last letter, see any reason in such matters as I have observed for a change of opinion, and cannot accept the conclusion that, because raids were possible and useful in America, it must be advisable to employ them in Europe, either in the Franco-German or in any future war. In the American War of Secession, as in all civil wars, the population was everywhere divided into parties. The raiding cavalry found friends everywhere, even among their enemies. The means of obtaining news, the care of the wounded, and the subsistence of the troops, took quite another character when it was possible to count upon the willing assistance of at least a part of the inhabitants. Moreover, there were there large forests in which the cavalry could conceal themselves and march quite unseen, as when, for example, Stuart's cavalry, on the 26th of August 1862, passed by the little town of Orleans without any one knowing it. Such a thing would be quite impossible in La Beauce, Touraine, or La Vendée. On the other hand, the vast extent

of uncultivated tracts of land and the virgin forests made it necessary to ride over enormous distances before reaching the enemy. The whole character of the conduct of the war was different, and that which was good in America might, perhaps, be only a source of failure in our country.

If we consider the advisability of raids by the French cavalry, we must come to a different conclusion, always supposing, as was not the case, that the French had had any disposable masses of cavalry at the moment when we were investing Paris. Imagine a raid by a French cavalry division from Dijon by Langres, Bar le Duc, St. Menéhould, and Rethel to the northern fortresses. Favoured everywhere by the inhabitants and warned in time of any threatening danger, hidden for many nights in the forests of the Argonne, attacking and annoying our line of communications at such spots only as they knew from the people to be occupied by few or by none of our troops, such a cavalry division would have done us infinite harm ; it would have disturbed our communications, destroyed the railways, cut off our supplies, burnt advancing provision columns, etc., and would thus have found an object for its undertaking which would have been well worth the cost. Smaller enterprises of a similar kind, carried out by infantry alone, did us here and there much injury, as, for example, the surprise of Fontenoy on the 22d of January 1871. In the same manner such raids would be most useful if they were undertaken by German cavalry on German soil, and might be crowned with the best results if an enemy, to our misfortune, should carry war into the heart of the

Fatherland, or if the strife of parties or religious conflict should bring about a civil war in Germany. In such case a raid assisted, as it would be, in every village and in every town by its sympathisers, might produce extraordinary results ; it might even, suddenly appearing in districts at a great distance from each other, serve as a nucleus around which those sympathisers might flock together, and might thus "call armies out of the earth by a stamp of the foot." But when undertaken in the country of an enemy, it seems to me, considering the civilisation and the armed forces of our neighbours, to promise no result worthy of the stake which must be risked. We have already experience of an analogous case ; our Free Corps in the War of Liberation in 1813 were of the greatest value on German soil, but were no longer of any use as soon as our armies had crossed the French frontier.

But, it may be said, such raids will in future be of immense importance at the beginning of a war, if the enemy's frontier be crossed immediately after the declaration of war ; they will pour over his country and disturb his mobilisation. Thus concisely stated the idea sounds a terrible one ; the cavalry are to stream all over the country like a storm-swollen flood, or, like the river Nile, are to destroy all life in it and to stop all intercourse. But one or two divisions of cavalry could not do all this. They must dissolve into their atoms, single troopers, and divide themselves over the enemy's country, in which case the hostile inhabitants, with their cudgels and scythes, would suffice to destroy them.

The cavalry must then advance in imposing

strength, on one, two, or at most three roads, choosing for their goal some distinct point, where they may be able to inflict such damage on the enemy as shall result in an important diminution of his fighting power.

Unless we are willing while considering this matter to lose ourselves in vague generalities, we must work out a distinct case ; we must suppose that war has broken out and must, compasses in hand, follow out in imagination some such raid, and take into account the possible results.

While doing this, we must take it for granted that it will be impossible for one power with a mobilised army to surprise another before it has commenced its mobilisation. A war can arise only in the following manner : friction of some kind or other will lead to tension between the two governments with the result that each will arm. A partial and preparatory arming is not possible, taking into account the universal liability to serve and also the plans for mobilisation, which are almost all formed upon our German pattern. It may, therefore, be taken for granted that the first step towards arming will consist of the mobilisation of the whole army. Such an act cannot be kept secret, and the enemy, even though war be not yet declared, will immediately commence his mobilisation, for the telegraph now carries all news swiftly. The difference in time between the beginning of the two mobilisations will not in future exceed twenty-four hours. We must then in any case assume that the State which makes a raid over its frontier must have begun to mobilise at least twenty-four hours before the enemy. It must



also be assumed that its cavalry receive the order to make the raid at the same moment as the order to mobilise. We must next assume that, under favourable circumstances, this cavalry are in a position to leave their garrison in a minimum of days after the receipt of the order, and that they require only a very short time for their concentration into divisions and for partial preparation for vigorous action.

In order to obtain a firm basis for such considerations with regard to time, it would be necessary to have in one's possession the schemes of mobilisation of the two countries in question. These of course we have not got, but it may be possible to calculate, from so much as is known, in how many days after the receipt of the order to mobilise the cavalry of the assailant can cross the frontier. On the other hand, it must be taken that the defender, over whom his enemy has an advance at the most of one day, should be considered to be at least at that point of his mobilisation which he would have reached in one day less than the time allotted to the attacking force.

After these premises let us take any frontier of any State in Europe, and move troops on the map in any direction which offers some object for the movement. We may suppose that the cavalry on this first day will march 28 or even 31 miles; measuring this on the map we shall see what they will come across.

We shall find that, even if they have passed the frontier itself without difficulty or hindrance, they will come upon either some fort, or a large fortress, or a river, which last they will not be able to cross,

since there will generally be a town on it, and in that town a garrison; this will no longer be on a peace footing, but will be in some stage of its mobilisation, and will thus be considerably above its ordinary strength owing to the arrival of reserve men, *landwehr*, etc. Though neither the mobilisation nor the armament may be complete, yet all will be fit for action, and, expecting the enemy's invasion, will be prepared for battle. We must also allow that the telegraph service will not be asleep, but will have reported the invasion. It will be acknowledged that a cavalry division can do nothing against a fortress. If they come upon an open town, its possession will be of little advantage to them, unless there is a garrison there, or it is the headquarters of a *landwehr* district, or something of that kind. If, however, it is anything of the sort, they must be prepared for the resistance of at least a battalion, armed with 1000 rifles. Can a cavalry division, at the end of such a forced march, reckon upon being able to overcome this battalion on the same evening? At least one regiment must remain mounted, and the division, even if it consists of 6 regiments, can certainly not provide more than 1400 carbines for dismounted action. Are these 1400 carbines sure to obtain a rapid victory over 1000 rifles? Certainly not! And will the division engage in a serious contest and throw its last man into the fight, when it knows that it will be practically annihilated if its attack is repulsed? This would, I think, be contrary to all reason, for the game would not be worth the candle. It might thus be possible to disturb the mobilisation of one battalion, but in order to do this an entire

cavalry division would have to be made inefficient for a long time. Nothing else would therefore remain to it but to wait until the next morning in some position near the town. But by the next morning telegraphs and railways would have considerably changed the relative force of the two sides, and this much to the advantage of the defenders.

On the next morning, therefore, the cavalry division must, taking all things into account, change its previous intentions. What is it to do? Is it to break through between the enemy's garrisons, having possibly to swim a river (in which case it must leave all its wagons and guns behind), and thus carry further disturbance into the enemy's country? This may be done, but at what price? The enemy, who has been armed on all sides, and who is in possession of the railways and telegraphs, will not fail to stop the cavalry by some carefully planned movement of troops, and will further cut off their retreat. The division would probably be destroyed. What real harm could it have done? It might have frightened the old women of both sexes, it might have cut down a few people, and might here and there have seized some *landwehr* man who was about to respond to the call to arms. But they would not catch many of these, for looking at a countryman will not help you to guess where he is going, and no one would be likely to tell them. Most of those who were fit to bear arms would hide themselves, and there would be no time to make a careful search through an unknown country.

But, you say, they could destroy railways and telegraphs. Perfectly true! But we do not use

masses of cavalry for this purpose. Skilful and resolute patrols, who hide themselves by day in the woods and make forced marches by night, can, since the discovery of dynamite (even if they consist of only from four to twelve men), do just as much harm, and can conceal themselves much better.

They might perhaps burn villages, lay waste the country, and destroy the produce of a harvest? But I am speaking of a war in civilised Europe.

The only result would be that some battalions of the enemy's army would lose a couple of men or so of their effective strength; no one will risk an entire cavalry division for so little. We see then, if we take an actual case, that a raid cannot be pushed beyond one forced march; while an independent raid at the commencement of a war appears to be impossible wherever the frontier is formed by a natural obstacle which has but few passages, such, for example, as the Pyrenees, the Alps between France and Italy, the Danube between Roumania and Bulgaria, and the Channel between England and France.

The mass of cavalry then which has begun its raid on the first day, will have nothing left to it but to halt in the portion of country which it seized on that day, to push out its antennæ to reconnoitre and to make small expeditions. But this species of undertaking has no right to be called a "raid," for it is nothing more than throwing forward the cavalry divisions in front of the army, just as our commanders used them in 1870-71. The question still remains whether there is any use in thus pushing forward cavalry into the enemy's country at the

beginning of the mobilisation, before the army is in a position to follow and support them. I think not: for if it be intended to make use of the same theatre of operations, then this intention will be made evident to the enemy by the early advance of the cavalry masses; if, on the other hand, it is not desired to undertake any serious action there, then the cavalry masses will soon become more necessary at some other point.

The conclusion at which I arrive is, that there is little advantage to be gained by undertaking such raids with the object of disturbing the enemy's mobilisation, and that it seems wiser to carry out methodically the mobilisation of the cavalry, as well as that of the other arms, before sending them forth on great enterprises; the enemy should be in the meanwhile annoyed by small incursions, and should be observed, until the whole army is ready to begin decisive moments in the offensive; then is the time to push forward the cavalry masses, just as we did in 1870, since these can then be supported by the army which is advancing in rear of them.

Even the fuller development of the firearms of the cavalry does not modify this conclusion. A cavalry division can afford very few more men than an infantry battalion for dismounted action, and will always be inferior to the infantry in their firearms and musketry training. With regard to the instruction of cavalry in the passage of obstacles (for example, in bridging), we read a short time ago in the newspaper how some Ulan's threw a bridge over the Oder, using only such material as they found to hand, and passed the river on it; but

??

material of this kind will not be found everywhere, while the cavalry have no time to spare to receive full instruction in pontooning and pioneer duties, unless they neglect their own peculiar duties and become simply bad cavalry. For in the scheme of instruction laid down for the cavalry, each day and hour is told off for some duty, and serious consideration must be given as to whether and when this arrangement should be disturbed. In any case the cavalry will not be able to pass their guns and wagons over the bridges which they make, while, as has been already pointed out, they cannot do without them if they are to act independently for any time.

The duty of the cavalry at the beginning of a war, immediately after it has been declared and the mobilisation is completed, will certainly be to push on for considerable distances (but not for more than one or two days) into the enemy's country, and to spread out their antennæ as far as possible, making reconnaissances, covering the front and screening the army, exactly in the same manner as they did in 1870.

## LETTER XI

### CONCERNING THE DIFFICULTIES AGAINST WHICH CAVALRY HAVE TO CONTEND

IF we closely examine the claims which are made, and must be made, upon cavalry, in consequence of the most recent inventions and experiences, an anxious doubt comes over us whether such demands can possibly be fulfilled, especially when we compare them with what used to be accepted as the normal efficiency. In former years, before Wrangel in 1843 gave the first impulse to an increased mobility of cavalry, a charge extended over 800 paces, including the walk, trot, and gallop. We now demand that cavalry shall pass over about four and a half miles at the more rapid paces (trot and gallop), and shall then still have sufficient left in them to make a charge and carry it through.

In former times a march of 18 miles in a day was considered to be a hard task for cavalry; we now expect them to be able to march 31 miles a day for at least two or three days together, and there are even instances where detachments have got over greater distances in a day; for example, the Dragoons of the Guard on the 30th of June 1866, and 150 men of the 6th Thuringian Ulan Regiment on the 15th

July 1866, who marched 58 miles. Stuart's cavalry also marched as much as 50 miles in a day.

In former days the cavalry patrols rode at most from one to two miles in advance of their picquets. We now see officers' patrols march up to 90 miles in a day.

We used to hold it as a principle that cavalry firearms were to be used only for signals. I can remember a proverb on this subject: "The infantry soldier who is shot by a cavalryman must believe in destiny." Now we demand that cavalry shall be able to carry on systematic dismounted action, and the history of the last war gives us many instances where dismounted cavalry have not only defended villages, but have even captured them.

If I picture to myself the appearance presented by a squadron of less than 40 years ago, when it, as an exception, decided to jump once the "ditch" or the "bar," and compare with it the manner in which the recruits, during the exercises preparatory to working in open order, now chase each other over ditch and bar, playing at "follow my leader," I seem to be looking at the cavalry of a totally different army.

The difference is so great that one of our old cavalry officers and finest riders when I asked him, after the inspection of a squadron with which he was much pleased, "What would you have said, when you were a lieutenant, if a senior officer had called upon you to do what has been done to-day as a sort of game?" answered, laughing, "We should have locked him up in a lunatic asylum."

It is certainly not easy to get from cavalry all that we demand. Neither zeal nor exertion are



sufficient of themselves. For by over-exertion in the training we may break down the bodily and mental strength of officers, N.C. officers, and men, and ruin the horses. It is of no use to allow extra forage; for overworked horses will not eat their corn. I once knew a captain of a squadron (he was for the first time training his squadron in every detail) who worked so zealously day and night in his stable during the whole winter, that he at last grew seriously ill. The result of all this trouble did not come up to his expectations. The men were, like himself, evidently overworked. The horses were tucked up, some of them even screwed, and all so thin and weak that they could not do their work. Taught by this misfortune he in after years held to a regular system and did excellently well with the same squadron.

The horse is an animal with sense and a will of his own, but as a foal he is awkward and clumsy; he must, therefore, be taught to move and to carry a weight, and must be so broken in that he may exactly obey the will of his rider; this will not injure his frame, but, on the contrary, will strengthen and consolidate it. We know how many years of study and of work and effort must pass before an officer is sufficiently acquainted with the nature of a horse, to be able to properly conduct the breaking-in of remounts. And when with the greatest care and with all knowledge he has taught his horses to obey exactly the will of their riders, he perhaps finds at the end of the training that he has spoiled the natural action of some horse by overworking him, or has, owing to having kept the horses too long in the

school, no time left to get them into condition. Or, on the contrary, the horse's wind and action may be all right, but he is not sufficiently trained or handy, and is too much inclined to want his own way when he is brought out into the open and put at his jumps. Nothing is more difficult than to hit off the right mean and to attend at the same time to his breaking-in, his training, and his food. Some people say that every circus rider knows how to break in a horse. But no circus horse was ever in sufficiently good condition to do the work of our cavalry horses.

The officer commanding a squadron has at the same time to instruct his men properly. It is not enough that he should, like the officer commanding a company of infantry, make his men into stout soldiers; he must not only teach them to be good riders and to use their arms, but he must also instruct them in musketry and dismounted fighting, just as an infantry soldier is taught, and, though no one anticipates that in these matters they can be brought quite up to the infantry standard, yet every cavalry soldier must at least learn how to make use of the ground when dismounted and acting on the defensive.

You can imagine how much the demands upon the intelligence of the cavalry soldier have increased since he has been entrusted with the duties of reconnaissance and outposts at all times during the movements of war. But no one who has not had experience of the mental condition of the recruit when he joins the regiment, can guess the enormous amount of trouble which must be taken by the instructing officer, in order to teach a man, as a

mounted soldier, to think quietly and clearly, and to make an intelligible report.

In proportion as greater efficiency has been demanded from the cavalry in these matters, more has also been required from the individual man and horse. At one time squadrons used to use only certain selected horses for patrols since most of them would refuse to leave the ranks. Now every horse has to be trained to go by itself in open ground, and if two or three horses in a squadron are found not to be trained to leave the ranks, the captain will certainly be brought to book.

The Sisyphus-like labour of the officer commanding a company is hard enough, but that of the officer commanding a squadron is ten times worse.

Moreover, greater demands are made upon both his body and his mind. After the longest march, and when both he and his horse are streaming with perspiration, he must, as he gallops along either at drill or in battle, take in clearly the state of the action, keep his eye steadily upon the enemy and upon his squadron, give the right command at exactly the right moment, and order the correct calls to be sounded. He has no time to think, for it is frequently a matter of seconds. Who has not often enough at the manœuvres seen a squadron, which had been sent out to a flank, not sufficiently well led to come in pat at the moment; and who does not remember how the captain was reprimanded? Some mistake, caused perhaps by the thick dust, with regard to the position of the enemy or of his own squadron, has made him form line at a gallop from echelon of troops, ten seconds too soon or too

late, and he thus finds his whole squadron either in front of the line of his own cavalry as they charge, or the length of a squadron too far away, leaving a gap in the line. When the charge is over every one sees his blunder, and all who know nothing of the difficulties of his task throw up their hands in the air, and say how marvellous it is that he cannot do what he has practised a hundred thousand times.

The very affection which a captain bears to his squadron makes it difficult for him to lead it. Officers commanding companies may be angry with me for saying it, but it is true that a good captain of cavalry is more closely attached to his command than a good captain of infantry. This is because their training has cost him more trouble. Above all, he loves his horses. This may sound unnatural, but it is human nature. Just as a mother loves that child best which it has cost her the most trouble and care to keep alive and to bring up, so the captain of a squadron gives more affection, and more pains, to the troublesome unruly *horses* than to the more easily managed *men*. Moreover, a horse remains ten years in the squadron, and a man only three, and thus the horses are, as it were, the kernel ; so that when the captain speaks of his squadron, he especially means the horses.

During the greater part of the year the care and the proper treatment of these animals have absorbed most of his attention, and he has taken care that "Donna," who is a little fidgety, shall be treated gently by her rider, that too much weight shall not be thrown upon "Tancred's" forehead, that "Belisarius's" feet shall be well looked after, that

"Omar's" legs are carefully hand-rubbed, and that "Sultan" is not pulled up so short as to produce a spavin, etc. Some day he is called upon to work his squadron, either in regimental, brigade, or divisional movements, at the manœuvres or in war. He must then, without any thought for his darlings, turn his whole attention to the enemy and the tactical situation of his squadron, and must be prepared to sacrifice the whole of it if necessary, without regard to what may become of Donna, Tancred, Belisarius, Omar, or Sultan. What must be his feelings when he has to lead this squadron, upon which he has spent ten years' hard work, into the storm of the enemy's bullets! No care for his own life will disturb his choice of the right moment for action, but he cannot help thinking of his darlings. He must expose them to destruction. In spite of himself he doubts, and the doubt obscures his judgment. "How," he says to himself, "if this is not the right moment; I might perhaps do more good by demonstrating, by manœuvring, or even by falling back, and thus save to the army all this valuable strength?" Much of the hesitation, much of the indecision of cavalry leaders, who by them have lost the opportune moment, has been due to this thought, and not to the instinct of self-preservation, which a German officer never allows to influence him in battle. The officer commanding a squadron must shake off all the infinite number of cares which weigh upon him when he, forming his opinion purely upon tactical considerations, wishes to take advantage of the moment for a charge; he must feel much as my friend B. (who is now dead) felt in

action when, after having ordered a squadron to charge the flank of the enemy, he cried rather irreverently: "Now God and the world may do what they like with me! Keep your lances low! Gallop! Charge! Charge! Hurrah!"

The difficulties which trouble the mind of a general commanding cavalry are yet greater, though of a slightly different character. The officer commanding a squadron can, even during a movement, interfere here and there, he can correct mistakes with his voice, and can exercise a personal influence. With a great mass of cavalry this is impossible. The officer commanding a cavalry division can do nothing, even by means of his aides-de-camp, when once the mass is in motion, and when their blood is once up. He must grasp the exact moment, and at that moment must give short but precise orders, for as soon as they have started in a swinging gallop, his influence is gone. He may see how here his orders have been misunderstood, or how there some unforeseen obstacle, or some precaution taken by the enemy, may render a change necessary, but he can do nothing. With a beating heart, and with heavy care, he is obliged to trust that his subordinates may do what is right of their own accord, while he has to bear all responsibility, whether victory or defeat be the result of his orders. How very much more comfortable is the officer commanding an infantry division! He can always send in time to such and such a battalion, or even to any company, if he sees that his orders or his intentions are not being carried out. The officer commanding a cavalry division has no such power. If he has not given his orders

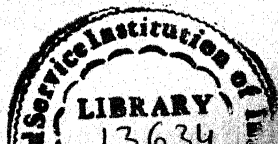
at once clearly, positively and briefly, he will have no opportunity of explaining them afterwards.

The commander of a large mass of cavalry must unite in his person so many extraordinary qualities, that no one who realises this can wonder why it is that a Seydlitz is seldom seen. But we need not therefore renounce the useful assistance of cavalry; only we must congratulate ourselves when a cavalry leader, even though not perfect, is found to be, at any rate to some extent, equal to the discharge of the duties of his arm.

Just as a cavalry leader has far greater trouble than a general of infantry in working his troops according to his wishes, so also is he exposed to far greater dangers. I am not speaking of personal danger, for this is no danger at all (the grandest fate that a general can desire is to fall on the field of honour, and to give his life for his King and Fatherland); I am speaking of danger to his honour and reputation. One order misunderstood, one trumpet-call wrongly comprehended, may ruin his fame for ever.

General Trochu (in a work published nearly twenty years ago and which attracted much attention at the time) described, under the head of "Panics," how the bravest troops may, under certain circumstances, be seized with a panic; and what he there relates of cavalry he must have seen himself, since he tells us exactly without disguise into what a state of disorder even good cavalry may fall owing to a very small misunderstanding.

Every one who has read it will sympathise with that unfortunate cavalry leader who rode forward



with the leading squadron to reconnoitre, while the main body followed through a wooded mountain defile. He had hurried forward the battery of horse artillery with the leading squadron, and they unlimbered on the bare hill which was at the mouth of the defile. The noise made in shutting the lids of the limber-boxes sounded through the narrow valley to the troopers in rear like six rifle shots, and they thought that infantry were firing quite close to them, and that they were defenceless against them in the defile. In the meantime, the scouts who had been pushed forward reported that the village in their front was not held by the enemy, and the battery according to regulation sounded the "Cease firing!" This was repeated threefold by the echo in the valley, and was mistaken by the cavalry for "fours about!" Their belief in the danger which threatened them was strengthened by the second slamming of the lids of the limber-boxes, which again resounded through the valley like rifle shots, and as the battery, wishing to follow the advanced squadron, now sounded the "Trot!" the whole of the main body trotted to the rear, out of the, as they thought, dangerous defile. As soon as they had reached the flat ground at the bottom of the hill, the senior officer ordered "Deploy by squadrons!" and sounded the "Gallop." Part of them heard only the first call, and part only the last. So they all started at a gallop, believing that nothing but a most rapid retreat could save them from some imminent danger. No word of command could be heard, none of the officers could catch up the fugitives, since they could not gallop faster than their well-trained men. So without a



halt the entire mass fled back for miles before an enemy who had no existence.

The commander of the whole, in the meantime, was waiting on the hill in front. Growing impatient because the main body did not follow him, he looked round for it. Then over the wooded crest he saw his men galloping away in the distance on the low ground at the bottom of the hill. He was in despair, but he could do nothing, for he was too far away, and moreover knew no reason for such disorder.

Or let us imagine the case of the commander of a mass of cavalry which has been ordered to follow as a reserve to an approaching attack, and who himself hurries forward past the columns of the infantry on the march up to the front, with the object of seeing where he can be of use. He orders his cavalry, if they can do so without disturbing the infantry, to trot past them. This is done. A by-road is seen, which appears to favour the desired advance, as no troops are using it. But this road really leads in quite another direction. The whole mass of cavalry rides on, and when the commander wants to employ them and sends for them, they cannot be found. The cavalry having arrived at the spot where they hoped to find their commander cannot find him, and wait during the whole battle for his orders. Or perhaps the General's horse hits his foot against a stone and is so lame that he cannot get on, while his other horses are with the cavalry in rear ; or perhaps an aide-de-camp says "right" when he ought to have said "left," and thus a suspicion arises that the General does not care much about

fighting. He thus loses his reputation, and the confidence of the troops, two things which once lost cannot be recovered.

I could give you many other examples which, like these, would not be drawn from the imagination. I will be content with these which show by how slender a thread, in the cavalry, that hangs which to every man is the holiest thing he possesses, his honour.

Let us further consider how important in these latter days the duty which is done by officers' patrols has become, since the supreme commanders of the army found their orders upon the reports furnished by them, and how necessary it is, therefore, that all young officers should acquire a knowledge of tactical and strategical matters, so that they may know how to make a good report, and what to report and what not, distinguishing between what is essential and what is unimportant. Thus the young officer, after he has finished his duty with the men, tired perhaps as he may be by riding, drilling, and his other work, must give some time to study; he must spend the intervals between the courses of training in making long reconnaissances, while he must employ his winter evenings at the war-game, and in extending his knowledge by hearing lectures. Thinking of all this we shall realise how great a price he pays for the swagger of belonging to the cavalry; he pays for it by unintermittent work, from daylight till dark, year out and year in.

Moreover mounted duty, including long rides, tries the health more than walking. The lengthened work in the riding-school, with the shakes and jars

given to the bowels and spine, have in the case of many officers sown the seeds of chronic illness, even during their first year of service as lieutenants, owing to which some of them have been invalided before their time.

Lastly, we must mention the sacrifice of money made by a cavalry officer while he is serving. He must always be sufficiently well mounted to be able to ride faster and for a longer time than the men. It is true that during the last ten years many arrangements have been made with a view to lighten the demands upon the purses of officers, and these are thankfully recognised by them. They are supplied with selected horses as chargers, and unless a man is unlucky with his horse this is enough; if an officer has the bad luck to lose his horse, he is given a gratuity or is supplied with a cast horse. But every cavalryman knows that he thus seldom covers his expenses, for the price of horses is now very high. Every horse represents a large capital. The State naturally does not assist officers when they injure their horses by their own fault. But a young officer who can know little about horses or riding, is very likely to bring his horse to grief; and is every young cavalry officer to be obliged, if while riding he wants to jump a ditch or hedge, to take into consideration whether, if he lames his horse, he may not be considered to have done it by his own fault? if this is to be so, the most valuable quality of the young cavalry officer, his recklessness and delight in danger, will be destroyed. It may be accepted as a fact that there is no cavalry regiment in which an officer can live, unless he is prepared to spend £100 a year out

of his own pocket. Nothing less than this amount will do for him until he becomes a 1st captain ; for as he grows older his needs grow greater ; and since he must serve twenty years before he can attain to that rank, we may reckon that a cavalry officer in the course of his service spends £2000, that is to say, he sacrifices that amount to the Fatherland.

I am not at all inclined to lay it down as a principle that quicker promotion should be given on account of this sacrifice of money. Such a proceeding would destroy the basis upon which the excellence of our officers rests. But if an arm which sacrifices so much money should receive somewhat quicker promotion than the others, on the ground that, in addition to the ordinary duties, it brings a greater strain on the body and prematurely enfeebles it, we could not grudge it to the cavalry.

## LETTER XII

### THE DEMANDS MADE UPON THE CAVALRY OF THE PRESENT DAY, AND HOW THEY WILL BE MET

I CERTAINLY pointed out in my last letter the difficulties which the cavalry must overcome in order that they may meet the demands made upon them, but you quite misunderstood me, if you conclude from what I said that I think that these demands are too heavy.

Speaking generally, the essential points of these demands may be summed up in a few weighty words.

A squadron must be able to get over  $4\frac{1}{2}$  miles at a rapid pace (trot or gallop), and must then have sufficient power left to make a charge and carry it through.

Certain picked horses must be able to march great distances, say from 50 to 60 miles, in a day, and it must thus be possible to carry out extended patrolling. The officers who command these patrols must be beforehand so thoroughly instructed in tactics, that they can make such reports concerning the enemy and the nature of the ground as may serve for bases for the orders of the supreme commanders of the army.

The larger masses of cavalry must be in a condition to make long daily marches, and should certainly, to give figures, be able to advance for three days at the rate of from 28 to 30 miles per diem. If these marches are to continue for more than three days the daily amount should be diminished, and if on any day the cavalry are asked to do more than usual, then the next day must be either one of rest, or only a short march must be made on it.

These exertions, whether of a single squadron or of a cavalry division, must have no influence on the tactical efficiency of the force making them.

This is not too much to ask. The cavalry can do it, have done it, and will do it, whenever they are asked, if only they are allowed the means to do it.

I have already said, in a former letter, that any single squadron which is properly trained can move quickly for  $4\frac{1}{2}$  miles and be then fit to charge.

I have also mentioned some reconnaissances during the war, in which individual officers have ridden as much as 90 miles in the day, and have brought back the most important news. I could further give you many cases of officers who, even during mere manœuvres, have been for 16 hours in the saddle without rest or food, and who yet remained fresh and clear-headed, being supported by their passion for their work.

With regard to the instruction of the officers who are to take charge of cavalry patrols, we may be sure that this leaves nothing to be desired. Not only does the Ministry of War allow reconnaissance

rides to be carried out every year by the cavalry of each army corps, in addition to those arranged for the General Staff (this would not be enough, it would only serve to teach the instructors), but I have every year seen the whole of the officers of the regiments once or twice, indeed as often as their training allowed them time, make excursions of a few days at their own expense, in order to gain by these journeys a fuller acquaintance with their duties as leaders of patrols; while I know one regiment (which has, nevertheless, not neglected any of its other points of training, but did most excellently in every respect) which brought its instruction in reconnaissance to such a pitch of perfection, that at the manoeuvres every sergeant and many corporals were able to supplement their reports by capital sketches which were done in the saddle.

To one question no answer has ever been given in time of peace: "Can a cavalry division march for three days at the rate of from 28 to 30 miles a day, without thereby seriously affecting its tactical efficiency?"

It absolutely must be able to do this. It has been done in war. When an army, leaving its base, sends forward its cavalry, it must expect them to be able to obtain in three days an advance of from two to three days' march. The cavalry must, therefore, be able to advance from 25 to 30 miles per diem, while the army moves 13 miles a day. (During the advance on Châlons one cavalry division did actually march 28 miles a day.) If this can be done the cavalry will gain the normal and necessary advance, and after that they can adapt their marches to those

of the army. But they will also by that time, if not earlier, have come in contact with the enemy, and will need the whole of their tactical efficiency, which must, therefore, not have been injuriously affected by their marches.

This is the only point in which our cavalry has no practice. But practice and system are most necessary for it, in order that these forced marches, three days in length, may be carried out in large masses with the greatest possible care for the condition of the horses, especially if the march is made in war, against a real enemy, or following out a distinct strategical idea. There are numberless things to be thought of with regard to these marches; these require practice, from which we can learn how best to spare both men and horses, and how to render them capable of great exertions.

We may begin by fixing the place of rendezvous. The smaller the body of troops which has to assemble there, the less will be the wear and tear of their assembling. After having discovered and noticed the direction of such parallel roads as exist, a decision is made as to whether the whole division must be collected at one rendezvous, or whether each brigade may assemble at its own. After this comes the assembly. Nothing tires troops more than being much moved backwards and forwards with a view to their assembly. We often see a squadron parade first at its own rendezvous, then it goes to that of the regiment, then to the brigade parade, and the brigade finally marches to the point of assembly of the division. An enormous amount of time is lost by this, and this time must be taken from the night's rest of



the troops, and can be entirely saved if by a little practice each small detachment is taught to find its own way to the appointed spot. Even in 1843 Wrangel gave strong orders against this waste of time and strength, and yet the same fault is constantly repeated, and all for want of practice.

Practice and system are also necessary before one can learn to give in the saddle short and exact orders which omit nothing and leave nothing doubtful. Practice and system are needed, moreover, in order to judge the proper amount of advance to be given to the scouts.

When the division commences its advance, it is absolutely necessary, if it is desired to march a long distance, say 30 miles in a day, that the horses should not be pressed, and therefore that the pace should be moderate. Great attention must also be paid that the march is made in good order, and that the ranks close well up. But if the regulation distances are exactly observed by the whole mass, then, since stoppages and disturbances of pace are unavoidable, the troops will be constantly opening out, stopping short, and then galloping up, a mode of proceeding which takes all the strength out of the horses, for the reason that it excites them. Much practice and system are needed before it becomes possible for a large body of cavalry to trot quietly. It must be laid down as a strict rule that the distance between squadrons shall be elastic, and shall be sufficiently great to prevent any disturbance of pace being transmitted from one to another; it is more important that the squadrons shall move at the same pace as the leading troops than that they shall

preserve accurate intervals. But if any interval thus becomes exceptionally large, it must be a part of the system that the rear squadron shall send forward single troopers to keep up connection with the squadron in front, and to make sure that the troops which are following shall not lose their way.

All changes of pace should take place at given hours. In the year 1866 I marched from Poysdorff near Vienna by Prague on Berlin with a strong column of artillery, and I directed that the force should walk for half an hour and then trot for  $2\frac{1}{4}$  miles, and so on alternately; during the first day's march, however, I walked for a quarter of an hour and trotted for  $1\frac{1}{8}$  mile only. In this manner I got over about  $4\frac{1}{2}$  miles in the hour. When the march was longer than 18 miles I used in the middle of it to trot  $4\frac{1}{2}$  miles at one spell instead of  $2\frac{1}{4}$ , after which I walked for a short distance, and then halted for half an hour. In this manner we marched our 18 miles in four hours, while the horses and men kept quite fresh, and the former even put on flesh. These were field batteries.

Care must be taken that at the halts the men dismount and mount by squadrons the moment they are formed up, in order that the horses may not be tired by the men remaining long in the saddle at the halt. It would be a very serious mistake to give the word to mount to the division as a whole, for, if it marched off at the walk, it would be half an hour before the last squadron could start.

Judging by the experience gained during my long march from Vienna to Berlin, I should divide a

forced march of 30 miles in the following manner: I should start at a walk for half an hour, then trot for  $2\frac{1}{4}$  miles, then walk for another half an hour, then trot for  $4\frac{1}{2}$  miles, walk half an hour, trot  $2\frac{1}{4}$  miles, and then again walk for half an hour; I should thus, including a halt of half an hour, have marched 18 miles in 4 hours.<sup>1</sup> I should now halt for from 2 to 3 hours, in order to allow the horses to be watered and fed, and for the men to cook their dinners. (I assume that they carry preserved provisions.)

The remaining 12 miles can be marched in 3 hours. In this manner the division will have advanced 30 miles in 10 hours.

Owing to the varying nature of the country which will be traversed by such a march of 30 miles, some opportunity will daily be found for deploying the division from order of march into order of battle, and this should be done either against a supposed or a skeleton enemy.

As cavalry manœuvres are now carried on, an enormous amount of practice is given in the movement of a division in three lines. I have seen some of these manœuvres last between four and six hours. During this time from four to six cavalry actions were fought in one day on a larger or smaller drill-ground. But they were all worked from the rendezvous formation. I have never seen them so managed that it was necessary to overcome the great difficul-

<sup>1</sup> This assumes the "walk" to be  $4\frac{1}{2}$ , and the "trot" 6 miles per hour. The above appears rather confused, but this is owing to the fact that in the original the distances are, of course, given in German miles =  $4\frac{1}{2}$  English. It is, however, the principle, and not the detail, which is of importance.—*N.L.W.*

ties which attend the change from order of march into order of battle in the presence of an enemy. These difficulties increase when the cavalry division uses several parallel roads, and this is usually the case in war. The cases where the two cavalries at first face each other in their rendezvous positions, and advance thence to the charge, are very rare. Those in which they come into action at once from the column of march are far more frequent, especially when both armies know how to make good use of their masses of cavalry, and send them far to the front to reconnoitre and to screen the army. In this case that cavalry will win the day which best understands how to pass very rapidly from the order of march into the order of battle in three lines. And yet we rarely practise this. The first officer, as far as I know, to start the idea that cavalry ought to be trained in such a manner that it might be possible to march them across country in order of battle, was General von Radowitz. His idea then (he died in 1853) received no attention. The cavalry of the XII. Corps has of later years practised this system at their manœuvres. I know from a trustworthy source that they thus gained great and most valuable experience, while, as is most remarkable, the charge for damage done which they had to pay did not amount to a third of the rent of their drill-ground. Yet for some reason which is beyond my knowledge, this kind of manœuvre has not been again attempted. On the other hand, the French constantly make their cavalry practise it. The divisions who are taking part in the manœuvres march towards each other from a considerable distance, and

the actual combat does not take place until after some few days of preliminary action.

In order to exemplify practically what are my ideas concerning this question, I will now give a description of a system of cavalry manœuvres which would fulfil my object.

A cavalry division (say the 5 regiments of the VI. Corps and 1 of the V. Corps) is collected in the neighbourhood of Krappitz in Upper Silesia, and is ordered to be in three days in the neighbourhood of Liegnitz. During the first two days it is permitted to carry out any tactical or strategical idea it pleases, on condition that on the second day it shall reach the neighbourhood of Lissa on the Weistritz to the west of Breslau. Placing myself in the position of the officer commanding the division, I should on the first day march by parallel roads over the Neisse to Michelau and Löwen, collecting my columns at some place into position for combined action against a supposed enemy.

On the second day I should march, with my whole division on one road, from the Neisse to the Weistritz against a skeleton enemy, and should on the way work out an attack in three lines. On the third day the superintending officer should give a general idea for the advance of the division against an enemy, who may be expected from Sprottau on the Bober, and who will, therefore, be encountered at Liegnitz.

The enemy would be another division (say of the III. Corps), which in a similar manner will have been ordered to reach Sprottau during the first two days' march, either from Kottbus or from Guben ; it should

then be directed to act on the third day against the division which has come from Lissa.

The operations of the third day must end with a combat between the two divisions, and will be followed by a day of rest. After this two days can be employed in the country between Liegnitz and Haynau in working the two divisions against each other, or in impressing upon the leaders the elementary principles of the tactics of the attack in three lines, if, judging by the manner in which the manœuvres have been carried out, this appears to be necessary.

After a second day of rest the two divisions will separate, moving the first day in accordance with some general strategic idea, and will return to their starting-points, practising various manœuvres, as they did on their march out.

I do not think that elementary practice of the two divisions in three-line tactics ought to be altogether given up, as was the case on the only occasion when such large movements of cavalry divisions were attempted; for I believe that at such manœuvres many elementary ideas must be proved by actual observation, and that a mere theoretical statement of them is not sufficient. But I do think that in our present manœuvres, as they are now conducted, more time is given up to them than is altogether essential.

Moreover, I consider that the assembly of the divisions and the carrying out of their exercises on one spot are necessary, in order that the highest authorities may inspect the divisions. This would not be possible during the forced marches without tying the hands of the officer commanding the divi-

sion by ordering him to rendezvous in some fixed position, and thus ruining the resemblance of the march to one made in war ; unless indeed the exertions of the troops during the day were made excessive by holding the inspection during the course of the march. But such an inspection is most necessary, for everything which is not inspected is neglected. All we soldiers know that well.

I am of opinion that plenty of time for the inspection by the senior officers might be found ; first, on the third day of the forced marches when the divisions come in contact, and on the two days given over to exercises between Liegnitz and Haynau. Opportunities for elementary exercises can be found on both these days, and also on the six days of forced march, when the General commanding the division, once each day, collects his force for united action.

In this manner the cavalry division (for example, that which marched from Krappitz) would give six days to forced marches, two to manœuvres, and two to rest, in all ten days, and would then return to the place whence it started.

Will any one object to this proposition on the ground that the horses cannot make three consecutive forced marches of from 28 to 30 miles ? If the horses are in condition and have had plenty of work, they must be able to do this. As I said above, the march takes seven hours, four before and three after the mid-day rest. If we allow three-quarters of an hour for coming from and going to his stable, a horse will be eight hours and a half under the saddle. If the exercises be energetically carried out all unnecessary waiting about will be

avoided, so that a horse will not have more than nine hours' work ; this is not too much, even if he is made to trot 18 miles, for a horse is tired much more by carrying a weight for a long time than by the pace at which he moves. But ten hours of work for three days would not ruin a horse ; many farmers' horses do far more than this during the whole harvest. At all events ten hours of such work would injure a horse less than if he, as is often the case at manœuvres, at exercises, and in war, had daily to carry his saddle for from twelve to sixteen hours, and this without a feed, while for the greater part of the time he is halted with his rider on his back.

Another question which arises is how time is to be found for such manœuvres. For I am far from wishing that the cavalry should cease to take part in the manœuvres of the infantry. On the contrary, I consider that the very closest connection between the cavalry and the infantry is essential, in order that the former may every year renew its knowledge that it exists only for the latter, and may discover what duties it has to fulfil towards the other arm. For this reason I consider that it is very desirable that the full strength of our cavalry should annually take part in the manœuvres of the infantry, and should not begin their own special exercises until after the others have finished, and when the reserves have been dismissed.

We have laid down above that these cavalry exercises will last ten days. Including one day of rest before and one after, this would imply a delay of twelve days in the discharge of cavalry soldiers, provided that, to take our example, the manœuvres of



the Army Corps finished at Krappitz ; unless this be arranged these twelve days may easily grow into fourteen or even into three weeks, and it might happen that some squadrons would not get back to their garrisons until after the middle of October.

I can see no disadvantage in this, for the recruits do not ever arrive until 3d, 4th, or 5th of November, and will thus not have exceeded their three years of service in the second half of October. The cavalry estimates would certainly be somewhat increased by the cost for a few additional weeks of the reserve men and of the horses which are to be cast. But cannot we, perhaps, manage to economise in some other department. If we cannot, then what must be must be, and must be borne, and this excess of expenditure will not be so very great that any one need object to it when once he realises the necessity for the measure. It is after all only a question of the cost of retaining about 180 men and 70 horses per regiment for at most about three weeks longer than usual.

There is yet one other question ; whether the cavalry can make such exertions without receiving more than the present ration of forage. Would it then be impossible to give them the war ration for the duration of such manœuvres ?

I have thus arrived at the comforting conviction that our cavalry are fully prepared to meet any demands which the army, owing to the improvement of firearms, may find itself obliged to make upon them.

## LETTER XIII

### CONCERNING THE DETAILS OF INSTRUCTION

YOU are altogether right in saying that nothing that men do is perfect. You then urge me to make an end at last of my praise of our cavalry, and to state in what I think they might still be improved ; I will now do so. Since I am thus compelled to enter into the discussion of cavalry details, I shall be obliged, for this purpose, to give up my original intention to consider the subject from the point of view of the officer commanding a division, who has all the three Arms under his command. I shall however confine myself to my own experience as an inspecting officer in command of a division, and shall give the results which I have myself seen.

I will, therefore, dedicate this letter entirely to the details of the instruction of the cavalry.

At the present day the remounts, since they can now be sent almost everywhere by rail, arrive at the regiments in the middle of summer ; whereas formerly the squadrons used not to receive them until the end of September or the beginning of October. They thus now come under military care and training three months earlier than used to be the case. The result of this is that they are broken in three months earlier.

This gain of three months does not appear to injure them in any way. In former days it was assumed that the four-year-old remounts were attached to the squadron simply to attain their full growth, and no attempt was made to break them in until the following year. During the whole of this twelvemonth the young remounts were exercised only so much as was thought necessary for their health, or, at the most, in order to accustom them to the saddle and the weight of the rider. For this purpose it appeared sufficient to give them over to the care of a N.C. officer, and they were not handed over to the officer who had charge of the training of remounts until after the expiration of the year. But, as a matter of fact, the N.C. officer could not keep the remounts exactly where they were when he received them. A four-year-old, who is already strong enough to carry a rider, must either be assisted in his development during this important year (in other words, his training must begin), or harm must be done to him and he must be spoiled; at least natural failings such as are peculiar to his structure or to his character may be developed, and it then will become far more difficult to break him in. As a rule, the last was the case, because the N.C. officer had generally no idea how to make use of this year, for the purpose of developing the powers of the horse and of teaching him obedience at the same time.

The late General von Schmidt deserved, in my opinion, great praise, for having suggested that the young remounts should be broken in as soon as they joined the regiment. A four-year-old is certainly weak in his bones and sinews, and he is easily tired;

but he is pliant and teachable. It is thus just as easy to make him obedient and assist his bodily development as it is to make him obstinate and to break him down ; it is merely a question of treating him with or without intelligence.

Many regiments took up General von Schmidt's idea, and commenced to break in their remounts as soon as they arrived. I have seen the most astonishing success result from this system. It would have been thought impossible in other districts to make the horses so docile, gentle, willing, and familiar with their riders. There was far less difficulty in fully breaking in these half-trained remounts, their shape and their paces were better, they were more fully developed, and they were handsomer and stronger. But this success was entirely due to the fact that the officer commanding the squadron himself, with the assistance of that officer of his squadron who knew most about horses, had from the first day taken the young remounts under his special charge.

The result was very different where this system was attempted by inexperienced hands. In that case it was not rare to find the remounts broken down by their training ; sometimes the germs of disease were developed, while sometimes they were so overtrained, that they had already learnt too much and had lost their natural and regular paces. This showed itself in their walk, which was not free and in which they did not keep their quarters well under them, and also in their trot which was irregular. This was, as a rule, caused by teaching the horses too soon to trot short and to passage.

The only way to avoid thus injuring the young

remounts is to entrust them to the most skilful hands in the squadron; that is to say, the officer commanding and his best officer must take special interest in them. This is all easy enough so long as they are both in garrison. But if the squadron is sent to the manœuvres, the officer who knows most about horses must be left behind to take charge of the remounts then present, and also to receive those which will arrive. It is hard upon the squadron, and harder still upon the regiment, to have to leave its five best subalterns behind it, at the very time when it desires to show how much it can do. But there is nothing else for it. The horse is the main element of cavalry, the very essence of its efficiency. He must be looked after from the very first, so that he may develop well and become efficient, for unless this be the case cavalry cannot carry out their peculiar duties.

In order that I may not be misunderstood, I will exactly state the amount of training which a young remount should have received when he is taken into regular work as an "old remount." Those remounts which, later on, give the best results as trained horses, are by the end of June or the beginning of July, in about the following stage, given that they joined the dépôt in the July of the preceding year.

They can trot their natural pace (not the short trot), and can also trot out. They can circle in a spiral and can circle and change. They are of course accustomed to their riders, and obedient to the bridle and the leg; they allow their riders to mount and dismount, or to spring into the saddle; they will leave the ranks and work alone; they can jump a

few small bars and ditches, and will, when circling at a walk or a trot, allow their heads to be drawn towards the centre. The highest point that properly trained young remounts can be expected to attain, without injuring their paces or their legs, is to break in succession from the trot to the gallop while circling, and to advance in line at a gallop. In every case in which the training has been pushed on at this time farther than I have mentioned, for instance, to the "Shoulder in," to passaging, to breaking into a gallop from a walk or by the word of command to the whole, some harm has been done to the horses, and either their paces or their sinews have been injured by overtraining. Considering the use which it is intended to make of the horse in the future, it is more important to gradually teach the young remounts to trot for a considerable distance in line than to make them bend or passage. A long trot quiets a horse, and makes him attentive to the aids. Of course it is possible to carry this to an excess, and to break down a young horse by overworking him. Nothing but practice and experience can teach the exact mean, and the best manner of breaking in a horse.

The recruits join the squadron about the beginning of November, long after the remounts. I have no criticism to make with regard to the principles which govern the winter training of cavalry recruits in riding. So much importance is attributed to this branch of instruction, not only by all thoughtful cavalrymen, but also by any one who knows anything about it, that, though it may be carried out in a more or less complete manner, according as the instructor is better

or worse than others, yet the principles of it are always correct.

On the other hand, I have been often astonished to observe that the cavalry, in the dismounted training and instruction of their recruits, have not made the same improvement in their system as the infantry have, with the object of obtaining the same striking results. The colonels of regiments and the officers commanding squadrons are certainly right in considering that the dismounted movements of cavalry are not of such importance as those of infantry. But every soldier ought to acquire a regular military bearing; many recruits join the regiments so badly set up and so mentally dense, that they are almost like animals and have to be made into men before anything can be done with them. The infantry, which has only to look after the training of men, has discovered a way of making the clumsy recruit into a soldier, which is far more progressive in its action, more mild in its means, and more rapid in its effect than the old system of severe discipline and drill. This begins with instruction in the articles of his equipment and with gymnastic exercises, the latter being carried on in comfortable canvas clothing. When the recruit has become accustomed to his surroundings, has lost his early shyness and discomfort, and has, thanks to the gymnastics, acquired a certain amount of pliancy of limb and of soldierlike bearing, so that he can march fairly well, then, and not till then, he receives his tight uniform and learns his drill. This system increases the trouble and care of the instructor during the first fortnight, since he has to take into account the individuality of each recruit; but he finds his

reward in time, for after this the progress of the men is far more rapid, and their appearance is far better than if, as was the old fashion, the wretched clumsy peasant had been forced on the very first day to endeavour to hold himself properly, and had been tormented by learning the slow march until he had cramps in every muscle.

It has always astonished me that the instructors of the cavalry who show such matchless patience with their horses and teach them gradually how to use their limbs and how to move, have no patience at all with their men, but expect peasants, porters, and cobblers to be able to march on the very first day, exactly as if they were educated men. We are told that the cavalry have no time to go into such details with every man. But the system of instruction which the infantry have adopted leads to a real saving of time, since it attains its object more quickly. Just as when training a horse you may easily injure him by going on too fast, so that it eventually becomes necessary to lose more time in order that he may recover from the injury ; just as if the training of a horse be hurried, the progress made is really slower ; so also is it with the bodily training of the men, which is hastened by attention to the individual nature of each and by demanding very little at the beginning. It is of the greatest importance to save time and strength in the training of cavalry recruits. Otherwise the unhappy fellows will suffer terribly owing to want of habit in riding, while the amount of things they have to learn, especially since reconnaissance and musketry have increased in importance, is so large, that anything which tends to



save time and trouble is of the highest value. Moreover, to my great astonishment, the cavalry regulations for dismounted drill still contain some intricacies, which the infantry have long given up as useless, while they cause the soldier objectless trouble. I will mention of these only the order "half-right-turn" (or left), and the "right (or left) about three-quarters-turn."

I think that the dismounted training of the cavalry should be as systematic, and should be based on as good grounds as possible; but I would add that I ask only that the soldier should be sufficiently instructed to be able to march with the regiment in a soldierlike manner on any necessary occasion, for example, when he goes to church or on any special parade. If he is taught to march in the ranks, either in sections or in fours, and knows the formations required for this, that will be quite enough. Anything more than this will only do harm.

Another branch of the instruction of recruits is the theoretical course. This is not everywhere carried on in a manner calculated to produce the best results. What I have to say about this applies to all the courses, those for the recruits, as well as those for the older men and the N.C. officers. It is so easy to take a text-book in one's hand, to read out of it, and to drum it (as is vulgarly said) into the men by examinations. When an instructor proposes to do his best, he arranges the text-book in questions and answers, which may be learnt by heart by his class. The unfortunate soldiers are thus taught to answer mechanically, suffering terribly all the time, and with their eyes

half out of their heads, but without thinking in the least of what they are saying ; and I have the very greatest sympathy with the soldier who to the question : "What is theoretical instruction ?" answered : "A kind of instruction which is not practical." I have only in exceptional cases come across a system of instruction which was easily intelligible to the men, and of which the principles were practically applied before their eyes. And yet this might as a rule be easily managed. For instance, let the instructor, when he commences to teach the duties of reconnaissance or outposts, send out his men as patrols across the barracks or into the streets which lie close to them, and the recruits will understand at once what is the meaning of the word "patrol," and can then think about their duties. The squadrons which carried on their instruction in this manner have always been, in the succeeding summer, the best at the manoeuvres in reconnaissance and outpost work.

If we follow the course of training, we find that in December the recruits are inspected riding on a horse-cloth. I have no remark to make about this ; it is carried on as well as possible in principle, and I should not wish anything changed.

In the course of the month of February the officer commanding the regiment as a rule inspects the remounts ridden on the snaffle. A great importance is rightly attributed to this inspection, since the handiness of the horses can be best tested on the snaffle. Great as has always been my admiration for Baucher's success in the circus, I have never been able to approve of his system, which set aside the snaffle altogether and trained a horse from the first

on the curb. Every Prussian cavalry officer will agree with me on this point. But our horses must eventually be always ridden on the curb, and they are ridden on the snaffle only provisionally, as a means to an end, and not at all with the idea that this can complete their training. For this reason I have found it advisable not to select the end of their training for this inspection, and not to consider it, like the other inspections, as a touchstone and criterion of the efficiency of the instructors and instructed; it is better that the officer commanding the regiment should hold it a fortnight or three weeks before the horses are to be first ridden on the curb. He can then, out of his larger and more extended experience, assist the officer commanding the squadron and the instructors with advice as to how such and such a horse should be treated, etc., before he is ridden on the curb. For this reason it was found convenient not to fix any particular day for the whole regiment, or the whole squadron, to commence to ride the horses of any named class on the curb. Some horses may be the better for being ridden for a week longer on the snaffle, etc.; and the more perfect is the training on the snaffle the more easily will the horse work on the curb.

The inspection on the snaffle must not, therefore, be considered as the close of a distinct period in the training of the horses, but rather as a means of controlling the mode of instruction, and of directing it in good time in the right way, if, by any chance, it has been indifferently begun.

I cannot leave this subject of the winter instruction in riding without saying a few words with

regard to those rules in the new riding regulations which differ from the old ones which have been in force for the last sixty years.

Many people have been astonished that the old division of classes has been changed, and that, instead of being divided into recruits and two classes of old soldiers, the recruits are now placed in the first class, and the whole of the old soldiers, including the N.C. officers, in another single class, the second. Many people, with the usual liking for what is old and a matter of habit, fear lest this change may result in the standard of good horsemanship being lowered. I do not share in any such presentiment. A good cavalry officer will be able to make better use of the new regulations than he could of the old, and these regulations are drawn up for good officers, that is to say, for the instructors.

For example, the preface of the new riding regulations gives plenty of latitude to the officer commanding a squadron. He can order riders of the 2d class, who, for any reason, have been backward in their instruction during their first year of service, to join the recruits of the following year. A wise captain will so treat all those men who would formerly have been placed in the lowest division of the 1st class of old soldiers. There will thus be in future one more division of recruits than there used to be.

When the old soldiers were divided into two classes, the officer commanding a squadron was frequently puzzled, when the men of his squadron could all ride well, how to determine whom he would take into the upper class, and whom of the really good

riders he would be compelled to leave for yet another year in the lower. He sometimes got over this difficulty by breaking through the regulations, and by selecting a "best" division out of the three in the lower class ; this bore the name of the 1st (the lower) class, but shared in the instruction of the 2d, and was inspected with it. This division was called "1st riding class trained up to the 2d." The officer commanding a squadron can now classify all his old soldiers who (with the exception of those who are put back to the recruits) are in the upper class, into different divisions according to their riding and general efficiency, and can arrange the various degrees of instruction to be given to each of these divisions ; for the regulations are silent with regard to the amount of instruction which the upper class must have received before the inspection. The greater elasticity of the new regulations, as compared with the old, also allows him to form a division in the present upper class, composed of the best riders mounted on such horses as require further training (the most backward horses can be sent to join the remounts), while the inferior riders of the upper class can be told off to the better trained horses ; thus the divisions of the class can be made homogeneous. A squadron had formerly, omitting the young remounts, nine divisions, as follows :—three divisions of the 2d class (one of old remounts, one of N.C. officers, and one of privates) ; three of the 1st class, of which one was "trained up to the 2d," while the worst was even worse than the recruits ; and three divisions of recruits. Of the nine divisions five are now in the 2d class, and consist of one of old remounts and four

others, which are ranked as A, B, C, and D, according to their riding; four are in the 1st class, of which the first is composed of old soldiers who have been put back to ride with the recruits. The great advantage of the present arrangement is that the officer commanding a squadron will no longer be tempted, as he used sometimes to be, to put the worst horses and the worst riders into the lowest division of the lower class, where less attention was paid to them, while their miserable performances were at an inspection counterbalanced by the excellent efficiency of the other division; he now places the most awkward old horses with the best riders into Division A of the upper class, in order that they may receive a further training, and the men consider it a feather in their cap to belong to the A Division. The riding of the squadron as a whole gains by this, and the degree of perfection is more uniform. And uniformity in the standard of instruction of the individual troopers is the basis of correct movement in a squadron at drill.

The new riding regulations allow N.C. officers to join the officers' class, which is a novelty. This regulation has not been everywhere very well received, and I do not doubt but that many regiments will make no use of the permission. I have nothing to say against it, for I can see no danger to discipline in the fact that certain exceedingly good riders among the N.C. officers are allowed to ride in the same class as the officers; for skill in riding is the consequence of physical dexterity, and it is no disgrace to a young officer if an N.C. officer, who has served for a long time, should show such skill in

a greater degree than he can, especially considering that he does so only in an enclosed riding-school. The "other qualities" which the riding regulations lay down as necessary for these N.C. officers in addition to special skill in riding, include sufficient tact not to swagger because they ride better than such or such an officer, and to keep silence with regard to any fault which may be found with any one of the officers.

I am especially pleased with the conclusion of the preface of the new regulations, which says: "The instructions which are laid down exclusively for the third class are in no case to be practised by whole divisions."

There is certainly much temptation to an exceptionally good cavalry officer to carry out this higher instruction with his class as a whole. We used to see whole divisions do volts and bends at the short trot, and change the lead at the gallop at the word of command; while in order to carry out these movements some, if not most, of the less handy horses were so roughly used, that their joints and sinews ran great risk of injury, or at least were needlessly tried. The wording of this prohibition is such, that it permits the most skilled riders on the best trained horses to practise such exercises, when they are schooling their horses and riding alone. This tends to keep up a love of riding as an art, and should, therefore, not be altogether given up. But it has no real military value, and should therefore be reduced to a minimum, for all such performances are only proofs of the mastery of the rider over his horse, and are unnatural movements, carried out at

the expense of the horse's power. The best riders and horses will have plenty of opportunities for them in individual practice, which, thank God, is carried out in our cavalry with special care, for it is founded on the principle that no horseman can ride properly in the ranks at drill, unless he can when riding alone make his horse obey his will under all circumstances.

On the other hand, I have seen certain practices, which appeared to be only amusing and mere pastimes, but which I can recommend as a means to the end. In the division which I commanded there was a squadron, of which all the men, when they had extended for sword exercise, stood up in their saddles and did gymnastic exercises or delivered cuts with their swords. In this same squadron all the men were taught (with the exception of the recruits and the men mounted on young horses) to spring into and out of their saddles when circling at the gallop, and further to jump off their horses just before reaching the bar (a low one, it is true), and to leap on again as the horse jumped. Moreover, the squadron finally deployed each division in the school, after which the men left their horses, then ran up to them again, crept under them, and leaped into the saddle from either side; this was done with all but the exceptionally skittish horses. This species of exercise has a special value, for it is only possible when the horses have full confidence in their riders, while this shows that they have been well and kindly treated. Since this squadron was, in all respects, quite the equal of any of the others, and had thus neglected nothing, I can fully recommend this performance as very useful.



I think that I have said enough to-day about the details of the cavalry, and I also fancy that, knowing the interest that every one who is a cavalry man by profession must take in the training of horses, it is not necessary for me to say more. For I have indeed learnt by experience that one has only to ask such men for anything in order to obtain it at once ; if I were, therefore, to write out a system of instruction it would be merely carrying owls to Athens. I will say no more to-day, but will, in my next letter, deal with drills and exercises.

## LETTER XIV

### THE DRILLS AND EXERCISES OF THE SQUADRON

WHEN I consider cavalry drills, the time of year in which they take place appears to me to be a matter of such importance that I cannot avoid beginning with it. In former years the cavalry of the Guard at Berlin were inspected in the middle of May, having been prepared for the inspection before that date. The squadrons had, therefore, to commence their drills at the beginning of April, and had thus to carry them through in what was, considering all that they had to do, the exceedingly short space of three weeks. The result of this was that many points were only superficially studied, while nothing was thoroughly learnt. But the worst result of all was, that one of the periods in the year which entailed the hardest work, namely the time of the training of the squadrons and regiments, exactly coincided with the season when the horses were changing their coats, and were therefore out of condition and easily injured. In consequence of this the inspection of the cavalry regiments in Berlin was, at the beginning of 1860, postponed until the middle of June. Under this system the squadrons had to finish their instruction soon after the middle of May, and

to be then prepared for the inspection. The special conditions which exist at Berlin made it impossible to place the termination of the spring training at a later date, since in the capital it is necessary to be able to exhibit as early as possible the capabilities of the Guard in time of peace, for it may very probably happen that their parade before foreign sovereigns or their representatives may, according to whether it be good or indifferent, exercise a greater influence on the course of politics than many a fight in war.

The greater part of our cavalry has been accustomed to consider the habitual system of instruction of the Guard simply as following the will of the King, and have on that account generally imitated it, and have thus fixed the end of the squadron exercises at the middle of May. But there was really no other cause for this arrangement. Moreover, the Guard has a second drill season in the summer, for the special reason that it is impossible to practise everything thoroughly in the spring.

I thus found, when I took over the command of the 12th Division, that the squadrons were generally inspected at the end of their training, on some date after the 15th of May. The General commanding had at that time issued a very excellent order that each body of troops was to be inspected only once in each period of instruction. This order very much quickened the training, since the inspections thus took from the period allowed for instruction no more time than was absolutely necessary. The various inspecting officers had by this plan to agree between themselves as to the day of inspection. I and the brigadier consequently were present at the inspection

of the squadrons by the officer commanding the regiment.

At the first of these inspections, on the 15th of May and the following days, I noticed that the period available for squadron drill coincided, in Upper Silesia (where the winter lasts longer than in Berlin), with the most changeable spring weather, so that sometimes several warm days made the horses begin to shed their coats, while these again would be suddenly interrupted by snowstorms on the following days. This made the horses sick, so that they needed special care just at the moment when a great strain was brought upon them by the exercises. This was a distinct contradiction. The consequence was that either the horses were severely tried, or the squadrons were not properly trained. I therefore fixed the inspection of the squadrons of the following year for the second half of June, it being understood that the last squadron was to be inspected, at the latest, by the last day of that month. I remember still the look of gratitude with which the officers commanding squadrons, who were deeply interested in the welfare of their horses, received my order.

The success of this plan was in the following year so complete that I continued the order for the future. In the first place, the squadrons could work at instruction in detail up to the end of April. Every experienced cavalry officer will feel with me how important it is for good riding in the open, that the whole month of April should be available to put the final touches to the training in the school. For every cavalry officer knows how much less a well-broken horse suffers from the excitement, the vicissi-

tudes, and the exertions which are inevitable during the drills, than does one of which the training is as yet incomplete.

The officers commanding regiments thus made their final inspection of the training in detail at the end of April or the beginning of May. The following fortnight could then be employed, either by passing on at once to troop and section drill, or in making good, especially in the case of young or backward horses, such defects in training as the officer commanding the regiment had noticed at the inspection as calling for improvement. The officers commanding squadrons had thus time and opportunity to carry out, during the current year, any wishes expressed by the commanding officer.

The squadron drills began in the month of May, just at the time when they would in former days have finished. It was thus possible to defer the beginning of the drills for a few days, if any exceptional weather had delayed the horses in changing their coats; while nearly six weeks were available for instruction.

Many old commanders of squadrons, who have been accustomed to a short and hurried period for drills, will perhaps tell me that this is too much, and that no advantage is gained by drilling too long and too often, that after a time the mind gets weary, and that no improvement is made at the last. But it is possible to get over this. The main point is that the horse, which is even more an animal of habit than a man, should be gradually accustomed to the exertion of drill. It is only by means of a lengthened period of drill following their previous training

(during which the distance trotted or galloped has been gradually increased, and thus the whole squadron has been brought into condition), that it is possible to get the horses into such good wind, that at last they will be able, when called upon, to trot and gallop four miles and then charge, without being in any way injured and even without being blown. The fat about the lungs must be gradually got rid of. If this be done too quickly pneumonia will result. The riders also must be gradually accustomed to long trots and gallops. They must learn not only to make them, but also not to be excited by them. The young recruit must be gradually accustomed to take a sharp gallop at drill, with the noise of the rushing horses around him, the masses of mud which they throw up, and the brisk wind in his face, as a matter of course; he must grow to take a pleasure in it, to feel quite at home in it, and to keep his eyes and ears open for the signals and orders of his leader, and must learn not to be tired with the movement, but to thoroughly enjoy it. A rider who feels thus incommodes his horse very little, and does not tire him like a rider who is uncomfortable in the saddle, and, therefore, clings on with a heavy hand, using the aids falsely.

If the squadron be wisely handled the exertions demanded from it will be gradually increased as the drill goes on, so that finally all that is wanted can be done without injuring the horses.

I have already said that I have seen all that I have described thoroughly carried out without the horses being blown. The horses were, moreover, in good fettle, though free from unnecessary

fat, and were firm, full of muscle, and in hard condition.

In order to prevent wearying the spirits of the officers and men during the period of six weeks that the squadron drills last, and also in order not to lose any of the time needed for the other branches of instruction, I ordered that the first principles of field service should have been taught, and that the target practice should be well advanced by the end of June, so that both these courses of instruction should be completed during the month of July. These two courses can be perfectly well carried out simultaneously with the squadron drills. Moreover, it is advisable, if you want to get horses into condition, to take them every day into the open air, and not to allow them to remain in their stables for one or two days in the week in addition to Sunday.

Their health requires daily exercise. With this object it was our custom to drill the squadron three or four times in the week. As we moved out to, or in from, the drills, each unit marched in war formation, with an advanced-guard, scouts, and reconnoitring patrols, and thus practically taught the young soldiers the necessary principles and formations. Once a week we practised field service which, if it was considered necessary to spare the horses, was carried out in drill order at a walk or a slow trot. We practised with carbines once or twice in the week, riding at a walk to the practice ground, which gave the horses the needful exercise. On the days when we drilled elementary riding-drill was also always carried on in the *manéges*, not by sections, which would have entailed a mixture of men and

horses of various capacities, but by classes ; these were then remounts, 2d and 1st class, and recruits. Thus variety of exercises obviated any tendency to weariness.

In a similar manner the inspection which took place at the end of the squadron drills extended simultaneously over many branches, including the elementary exercises, manœuvres by signal, manœuvres in action, the elements of field service, riding by classes in the *manège* and single combats, while, after the squadron had been broken off, the young remounts were inspected in the school. Of course it was impossible to properly inspect so many branches of training without a considerable expenditure of time, and many cavalry officers who are not accustomed to this system will be horrified to hear that the inspection of a single squadron often lasted from four to five hours. But when two squadrons were collected in one garrison and could thus be inspected together, it lasted from six to seven hours. It may be thought that this must injure the horses, but it was not found to be the case, provided that the inspection was carefully arranged so as not to put too great a strain upon them, and if, which was the most important point of all, the squadron had brought their horses into good condition by the system which has been given above.

The real way to spare the horses at an inspection is, not to compel them to stand waiting in parade formation on the drill-ground. This waiting in parade order tires horses terribly. If the inspecting officer, as cannot sometimes be avoided even with the best will in the world, should be un-



expectedly delayed, it is very possible that the squadrons, which would rather be a quarter of an hour too early than half a minute too late, may be kept waiting a good half-hour under the strain of the parade formation. This is a great exertion and very tiring, and the general result is, that the horses, weary of standing, move a little backwards and forwards, do not stand up to the bit, and thus the dressing, which may originally have been excellent, is lost. The commander, who has carefully dressed his ranks, gives the order to salute as the inspecting officer draws near, and is then, when he rides to the flank, as much astonished as the General at the appearance of his squadron, which has, in the meantime, entirely lost its dressing. I have known a case where a body of cavalry, which I knew to be perfectly drilled, thus excited at the very beginning the impatience of the inspecting officer; it then marched past at a walk, during which the horses, who were tired of waiting, fidgeted about in and out like the teeth of a saw, and produced a very bad impression on the inspector. If you want to see what a squadron really is, and not merely what it may by accident appear to be, you should order the men and horses to be in their stables ready to turn out; when the inspecting officer arrives he will see them turn out, and can watch them as they are told off; and should then wait until the officer commanding reports that the squadron is ready in the stableyard. In this manner the mode of carrying out the interior duties of the squadron may be judged, so far at least as they are connected with the parade. When the squadron is ready, the men

and their equipments can be fully inspected. If then the squadron be ordered to march to its drill-ground, carrying out on the way some simple tactical idea, two points are gained ; the time taken by the march to the drill-ground is shortened, and the squadron can on the way be tested as to its efficiency in the elements of field service. It moves forward at a trot, and attacks a supposed or a skeleton enemy. If two squadrons are inspected at the same time, one of them can be sent on to the ground, while the other follows it, and thus it can be arranged that they shall attack each other when they are both on the exercise ground.

This was followed as a rule by the elementary exercises which, when two squadrons were being inspected, were done first by one and then by the other, while the squadron which was not drilling dismounted and rested. The parade and the march past took place, if thought desirable, during the elementary exercises. In order to give time to the horses this was followed by the sword exercise. This really did ease them, as it was carried out one class at a time, while the others rested. And, moreover, only two or three men of each class were inspected at a time, while the others stood at ease. After this followed fighting drill, and whatever else the inspecting officer wished to see ; for example, movements at the gallop, post-practice, etc. The squadrons then returned to their garrison at a quick pace, carrying out as they went some tactical idea by way of practising their field service. If such an inspection as this lasted from four to six hours, it could not distress the horses, for each horse rested several

times between the exercises, their riders being dismounted for at least half the time. And in the warm days of June it matters nothing whether a horse rests in his stable or in the open air. The higher the rank of the inspecting officer, the more probable it is that he will not be able to give so much time to each squadron as would be necessary for such an inspection. I cannot omit to remark that my then commanding general, who was himself a red-hot cavalry soldier, was very fond of being present at this kind of inspection, and, when he had not sufficient time to see all, preferred to see only a part of the squadron, rather than that the inspection of that part at least should not be thorough.

Allow me now to enter into some details with regard to points in the drills of single squadrons which I have noticed as being specially worthy of remark.

I spoke above about "drill by signals." Para. 110 of the Regulations of the 5th of July 1876 permits this to be carried out. But before this regulation appeared one officer commanding a squadron had practised his troops not only, as this paragraph lays down, to advance, to halt, and to change direction according to signals made with the sword, but also to perform most of the movements possible in sections, such as wheeling into column or half-column, advancing after the wheel, changing front or direction, and changes of pace; this last was done by a simple order, that the squadron was to conform to the pace at which he rode. Soon afterwards the other commanders of squadrons in the division did the same, and the officer command-

ing the brigade, in order to introduce uniformity into these practices and signals, inquired as to the system which had been most successful, and made this a regulation for all the squadrons. It is true that he went further than para. 110 prescribes, and permitted some things, which the regulation has forbidden. But the result was so excellent that I said nothing against his system. From that time the squadron leaders moved their squadrons all over the drill-ground in every formation and at all paces without a single word of command. It looked very strange to see a squadron, without a trumpet-call or a word of command, sweep silently over the plain. When the ground was soft, so that the tramp of the horses could not be heard, the cavalry gave one the impression of ghosts obeying the orders of an invisible spirit, and one thought at once how easily they might surprise an enemy from the flank or the rear. But the true value of this system did not, in my eyes, lie only in the fact that it was thus possible to skilfully lead a squadron in the midst of the noise of the movement of a large mass of cavalry; it seemed to me rather the means to an end. The habit of watching for a signal from the sword of their leader accustomed the troops to an increased attention to the actions of their officers, while the latter learned to keep their eyes fixed on their chief. The silence of the officer commanding the squadron was infectious, and consequently there was not any talking in the squadron, a fault to which the men get quickly accustomed, not from want of discipline, but out of goodwill to each other, to help their comrades, and to prevent mistakes. It is

indeed perfectly true, that drill by signals with the sword works more correctly, and more quietly than by word of command, and when the former had once been learnt it improved both systems of drill, giving greater exactness in leading and better discipline at drill.

The same paragraph of the regulations directs that the squadron is to be practised in charging on given points. With regard to this, when I was in command of a division, I discovered a most curious thing, namely, that if this charging upon some special object is not assiduously practised, it is most difficult to hit it off exactly. When I directed the officers commanding squadrons to charge directly upon me, wherever I happened to be, and to strike me with the centre of their squadrons, scarcely one of them could do it. As a rule the squadrons shot by me, while they found it still more difficult to ride at me when I was in motion, even at a walk. They then, it is true, dressed by the right. They now, thank God, dress by the centre, and the squadron leader gives a line to the section of direction, so that the men have only to follow the directing officer, from whom the directing file has to keep its interval; this is far easier. But the charge must be constantly practised, more especially against objects in motion which it is desired to attack. For the most important thing of all is that the squadron shall charge the exact point which has been selected. What is the use of any cavalry training if you charge a friend instead of an enemy? I had often heard it spoken of as a fault (before I had had cavalry under my command) that the leaders could not "seize the

object of the charge," but no one ever taught the unfortunate and much abused commanders of squadrons how they were to do it, and they never had any opportunity of learning. Even when the troops dress by the centre, practice beforehand is, as I have said before, sorely needed, especially when the charge is made on a moving object, such as may always present itself, especially in a combat which sways backwards and forwards. For if the squadron leader is riding as hard as he can, and turns to follow a moving object, the inner wing will be crowded up, owing to his change of direction, while the outer will break up into a loose swarm. He must, therefore, take up his new line at a moderate pace, in order that the outer wing may wheel and overtake him, while the inner slackens its pace. Unless this be done the charge will always be loose.

And those loose charges! What complaints we have heard of them and how often have people written that the charges are too loose, and that they ought only to be attempted knee to knee! But, my honoured comrades of all arms, all these complaints and these writings are of no use, if you only shout out blame and do not go to first principles, and say why the charges are loose, and how this disadvantage is to be overcome! The regulations describe exactly how a charge is to be made over the open drill-ground. We are now ordered to practise a charge on a moving object. But even this is not sufficient.

When a body of troops had overcome with success all the difficulties which affect a charge in close order, when it had carried out a charge in the closest possible order on the drill-ground, when it had even

practised charging a moving object, even then it somehow happened that these troops at the manœuvres arrived in disorder at the spot where they ought to have looked like a wall. Every one then blamed them, criticised them, and abused them, and called their fault "quite incredible" and "unheard of," but no one told the roughly-handled leader how, where, and when he had committed his fault. The result was easy to see, and the expressions "a mere swarm," "a horde," "a rabble" were quickly spoken. But where was the fault? How was it to be avoided in the future? I never heard these questions answered.

And yet the error was so easy to see, and so excusable, that a word of friendly advice or a simple remark would certainly have done more to remedy it than the very strongest abuse. For at the manœuvres and in war it very rarely happens that a cavalry charge advances over the whole distance in a straight line, as it does on the drill-ground. Most charges immediately succeed a movement to a flank, either by the wheel of the squadron or by forming line from column of sections; directly after which comes the order to charge. Most squadron leaders, being eager and hot to fight, keep their eyes directed solely on the enemy, and swinging their swords give the command, "Charge!" immediately after the movement has been completed, not looking at their men to see whether it has been properly carried out. If this has not been the case, and if the outer flank has not been able to complete the wheel, then the charge must be loose, even practically in open order, since the pivot will be too far in advance if it starts

too soon to charge. This fault is most common with keen officers who love fighting, since they burn to rush on ahead of their men and to throw themselves upon the enemy. But they must be taught to see that such extreme hurry endangers the very success which they are desirous and eager to obtain, and that one look, a mere glance, at their squadron must precede the order "Charge." Any one who understands the cause of this evil will recognise that it may be more easily cured by a kindly word than by blame and reproaches, for it springs from an excess of zeal and a longing for action and not from carelessness or indolence.

With respect to the last point of the detail of instruction which I shall mention, I am afraid that my opinion will be opposed to that of the majority of cavalry officers. I mean with regard to the so-called *small* squadron drills. Many senior officers of cavalry are strongly of opinion that these should be carried out at every pace with the very greatest precision. The squadron rides to the large *manège* in file right in front, then forms sections, and then half-sections, wheels to the right about, re-forms sections, advances by files left in front, forms line, and has to stand like a wall. On every drill day the squadron goes through this exercise for half an hour or an hour. During the whole movement there must be no pause or any confusion; if there be, some one gets into trouble. When I, with the innocence of an outsider, asked: "What is the use of all this?" I was told that it was absolutely necessary, in order to prevent any delay or crowding in the case where a squadron marching on a wide front might have to



pass a narrow defile. But in war I have never seen cavalry march in any other formation than sections, and no squadron leader to whom I have spoken on the subject has ever made any use of these drills. And yet what an enormous amount of trouble, effort, and time is expended in order to work them up to perfection ; and how many horses' shoulders and fetlocks have been ruined by them, either by being too suddenly halted or by a blow ; while all this is done in order to provide for a case "which might occur in war," but which never has occurred, and in order that no horse might be then lamed ! How much more time and trouble would be available for the more important and more practical instruction, if less value was attributed to these so-called squadron drills, and if we could be contented with seeing that each man knew where he ought to ride in file, in sections, or in half-sections, and no longer considered the change from one formation to another as a necessary part of an inspection. These drills are such a wearisome torment to the men, that they have become proverbial in the cavalry, and a trooper says : "I made him march in file," when he means that he has paid somebody out. It would be much better to practise extended trots in the various long columns on a narrow front, rather than to teach the men to change frequently from one formation to the other ; for it is more important that the columns should keep exactly to their pace and order and should be well closed up than that they should be able to rapidly change their formation.

Is not all this rather an old-fashioned whim, something like a pigtail which hangs behind us, and which

we should do well to cut off? My comrades of the cavalry will, I hope, pardon me this expression, since my attitude towards them is certainly not that of an enemy. Many officers commanding squadrons will be most thankful to me for what I have written, and will say: "Yes, certainly; if it were a matter of regulation that these squadron drills should no longer be gone through at inspections, as is now the case with the 'locking-up' of the infantry battalions, I should have my hands much more free for my real work."

## LETTER XV

### FIELD SERVICE

THE exercises which take place during the month of July must be considered in connection with those which are held after the manœuvres and before the arrival of the recruits, since they consist, in addition to target practice and the repetition of the squadron exercises, principally in the instruction of the officers and in the practice of minor field service. This last has, since the latest great war, very much changed its former character. Who does not remember the time when every little detail of field service under a N.C. officer started from some grand general idea, which had only an indistinct meaning for the officer who gave it, and none at all for the man who carried it out. Even though all these general ideas did not begin in quite such a high-faluting style as the following (which are historical and almost classic) :

“Anhalt-Dessau, jealous of the increasing power of Prussia, etc. etc.,” or “The nations of the west have revolted, and the nations of the east are advancing to attack them. You, Corporal Adams, are to lead a patrol towards Brauhausberg, etc. etc.,” or “Berlin no longer exists, etc. etc.,” yet they often so puzzled the imagination of the N.C. officer who

was to carry them out, that he had no very clear notion of what he was to do, and this is worse than having none at all.

Yet even now the practice in field service has to overcome the fact that some general idea, some situation, must be laid down, and that this has as a rule no meaning. Some young lieutenant or a N.C. officer starts in the morning at the beginning of the practice of field service, and has first to take in every detail of some complicated plan of campaign, in accordance with which he has to imagine not only an enemy before him, but also his own troops which are supposed to be posted around and in rear of him ; he has then perhaps to make-believe that some cornfield is a marsh, or that a potato-field is a lake ; and thus efforts are demanded from his intelligence and his imagination which they are not in a position to give, and which are, moreover, entirely useless. For nothing of this sort happens in war. The plan of campaign is then always the same, or at least its changes are so gradual from day to day, that they are scarcely noticed, since they form part of the soldier's life ; again he has not got to imagine anything, for he sees the reality before him and has only to consider what is actually there.

One of the officers commanding a cavalry regiment under my command, being convinced that this was a defect in our minor practices in field service, discovered a manner of conducting them which did away with the greater part of these disadvantages, and which I thought so good that I directed the whole division to conform to it, and, moreover, mentioned it in more extended circles.

It was as follows : he in the spring decided upon a theatre of operations which, working with the same system as is used for the reconnaissance rides of the cavalry and the General Staff, might employ all the detachments of his regiment (four in number) for three or four days in combined action. Immediately after the inspection of the squadrons he made, with his officers, a reconnaissance ride of three or four days through this theatre. Wherever the position of the detachment allowed it, he took the N.C. officers also with him. This he did either during the last days of June or at the beginning of July. The governing principle of the whole of the exercises in field service for the entire year was based on this theatre of operations, and he ordered that all practice in field service was to be carried out within the bounds of this theatre, which he had selected as the scene of his general idea. The consequence of this was, that it was no longer necessary for the officer conducting the practice in field service to think out a new general idea on each occasion, while the heads of those who had to carry it out were no longer troubled by having to work under fanciful conditions, which were often quite improbable and were sometimes even impossible. But the principal advantage consisted in the fact that the officers and N.C. officers carried out their minor practices in field service, just as they would in war, during the whole year under the same tactical conditions, and thus their proposals were far more reasonable. Moreover, little time was lost in explaining or illustrating the tactical conditions, and the practice could pass at once to the essential point, the actual measures to

be taken by those who had to carry it out. This arrangement produced excellent results in training the men in field service. I have never seen a cavalry regiment so well trained as was that which adopted this system.

The plan had an additional advantage, inasmuch as each squadron as it marched (not only to and from the drill-ground, but also when it moved to concentrate on the headquarters of the regiment, or to its exercises, or to the grand manœuvres), had to advance with the precautions laid down by the regulations, such as sending out scouts and reconnoitring patrols, and was not allowed to take up any new cantonment until it had received reports regarding it from the patrols. As these reports could not be made with respect to an enemy, they were made concerning the ground.

On one point only had I occasion to offer some criticism. I am however glad, and yet sorry, to say that I had to make the same observations to all the other cavalry detachments. In no case, in my opinion, was there a sufficient distance between the reconnoitring and protecting parties.<sup>1</sup> I must acknowledge that the two duties are closely connected. For if the reconnoitring patrols report decidedly that the enemy's troops have taken up their bivouac at such or such a point, we may consider that during that night we shall be safe, if we are at a certain distance from them ; while, on the other hand, the report of a vedette or of an outpost

<sup>1</sup> "Aufklärungsdienst" and "Sicherheitsdienst"; the latter includes outposts when halted, and advanced-guards on the march.—*N.L.W.*

patrol may be considered as a sort of reconnaissance report of the enemy's movements. But it is, nevertheless, necessary that the duties of reconnaissance and of security shall be carried out by entirely distinct bodies of troops. This is most obvious when on the march. A squadron or a troop which, when riding as the advanced-guard of troops on the march, carries out the ordinary regulations for cavalry on the march, is practically useless as regards the reconnaissance of the enemy, since the leading file and flankers can, and may, only be at such a distance as will allow their warning shots to be heard, and thus give time for the main body to prepare for action. All reports from this regulation formation will, as a rule, arrive too late, for by the time that they have been carefully made and fully understood a determined enemy may be already upon you. In no case are these files sufficiently far advanced to allow the receipt of their reports, concerning an enemy who has been found in position, to be ready in time to allow of the adoption of the regulation formations before the troops come under his fire. It is therefore necessary, in addition to the proper care for the security of troops, to send out officers' patrols some miles ahead. For the advanced-guards have to keep the prescribed distance from the troops to which they belong, while the reconnoitring patrols should ride on well in front until they come in contact with the enemy. The conduct of the former is governed by the position of their own troops, that of the latter by that of the enemy.

In most cases, when a squadron at the manœuvres

was ordered to push forward from the rendezvous, with a view of gaining information about the enemy, the advanced-guard trotted forward, and made its patrols and leading files gain their distance from the main body at a gallop, in the elegant manner which is laid down at page 206. of the Regulations. But, as a rule, no one ever thought of at first remaining halted, of sending out fully instructed reconnoitring patrols along the various roads, and of allowing them a start of a quarter of an hour.

On the other hand, I certainly read lately in the *Militär-Wochenblatt* a complaint that too great a use of officers' patrols was made during the manœuvres. If I had noticed this I should have been delighted : for the object of the manœuvres is to afford proper practice to all the troops, and I can only think it exceedingly fortunate for cavalry officers, if during the manœuvres they have really good opportunities of working officers' patrols under service conditions, and of forwarding the necessary reports. It is very certain that in war we shall not have a sufficient number of officers to furnish a third of the officers' patrols which we are able to use at the manœuvres. But it is impossible to carry on everything at manœuvres as it would be in war. The necessity of making as much use as possible for purposes of instruction of the very costly days of the manœuvres leads to many absurdities ; but these cannot be avoided. For instance, I remember that we have on many days fought three battles in succession, and this for three days together. If we tried to manœuvre properly, that is to say as in war, we might perhaps have one battle, or even not one, during the whole



time of the manœuvres, and thus the small modicum of instruction and of practice in fighting which we should gain from them would bear no comparison with their enormous expense.

Owing to the great importance in war of the reports sent in by officers' patrols, it is necessary to take every opportunity of practising officers in them, in order that they may learn to rightly appreciate various military situations, and to report clearly and correctly what they have observed. When we read of the influence exercised by the well-known reconnaissance of Major (now General) von Unger, on the 2d of July 1866, on the decision of the leaders of our army; how during the advance to the Moselle, on the 12th and 13th of August 1870, Staff officers, and even Chiefs of the Staffs of army corps, rode with the foremost patrols with the object of correctly learning the situation of the enemy; how important were the reports of those dashing cavalry officers, who rode between the enemy's army corps, and on the 24th, 25th, and 26th of August 1870, found out for certain the direction of MacMahon's march; and how Goeben decided to carry out the concentration which led to the battle of St. Quentin, solely on the report of a single cavalry patrol which had pushed on boldly to the front; we feel inclined to wish that every young cavalry officer who might be employed with such a patrol could receive the education of an officer on the General Staff, and might thus be in a position to correctly comprehend and report on all tactical and strategical situations.

I know well that I am proposing nothing new, when I say that the service of security should be

entirely separated from the service of reconnaissance. We might recently have read the same remarks in the criticism of a general in high position in a neighbouring army on some manœuvres by his troops at which he had been present. Verdy also calls for this separation in practice (in his book *The Cavalry Division in Conjunction with an Army*), though he does not lay down the reason; he recommends it even for the advanced cavalry divisions, which are themselves altogether intended for reconnaissance duty, since he advises that they should send out whole squadrons in front of their outpost line, and that these should move independently, with very large intervals between them, in the direction of the enemy. It will not be always possible to carry out this principle, especially when the space between the lines of vedettes of the two opposing forces has become very small. But no infallible scheme or universal plan can be laid down for the conduct of the service of reconnaissance by cavalry. The principles which govern the manner of the discharge of this duty depend so very much upon the character of the ground, upon the tactical situation, upon the efficiency or inefficiency of the enemy, upon his distance, and upon many other circumstances, that they will vary in each particular case, and must be carried out with sound common sense, in conjunction with a full acquaintance with the functions of cavalry and with the strategical situation. Moreover, reconnaissance is not guided by distinct forms and axioms as the service of security is. For this reason it must be entrusted to quite another class of officer.

If, for example, a vedette be ordered to patrol, he must abandon his duty as a vedette or he cannot ride very far to the front; and if the head of an advanced-guard on the march is to be used for reconnoitring duty, the advanced-guard will, during the greater part of the march, have no head. This sort of thing is by no means rare, and I have, therefore, not considered it superfluous to lay special stress upon the necessity of separating the service of security from the service of reconnaissance.

I cannot refrain from here making a statement, which sounds like a paradox, but of which I have experienced the truth on many occasions, both in war and in peace; namely, that in many, even in most, cases a simple officer's patrol reconnoitres better and sees more than an entire squadron or an even stronger detachment of cavalry. In the first place, a whole squadron is more easily seen from a distance, and it is much more difficult for it to conceal itself, while a small clump of bushes is sufficient to hide a patrol which can, besides, far more easily escape observation as it comes or goes. Again an entire squadron, even though it be sent out for the purpose of reconnoitring only, is easily tempted to engage in a fight, and thus to betray its presence, and to allow itself to be involved in a line of action which in no way assists in the discharge of its duty. It is of no use to say that this ought not to be. It will always be done all the same, and cannot sometimes be avoided without compromising its honour. But an officer who is sent out with only four troopers, for the purpose of bringing in news

about the enemy, would never think of making a charge with that force. I remember distinctly how once at the manœuvres, with the object of reconnoitring on the flanks, a squadron was sent out by one force and an officer's patrol by the other. The squadron drew upon itself the artillery fire from the enemy's position, and had to fall back without being able to obtain any information with regard to the position of the enemy's infantry ; but the officer's patrol crept through hollows and bushes close up to this same squadron, which did not notice it, and sent in the fullest information, not only concerning the squadron, but also with respect to the whole of the hostile position. It might of course be said that the squadron could have sent out an officer's patrol. But when a squadron has been given the whole duty to do, it is not inclined to play a minor part, while if the squadron is compelled to fight, the officer with his few troopers would be sorely tempted to hasten up and assist his comrades.

I can certainly very well remember one case, where a squadron made a false attack on one wing of the enemy's outpost line and broke through it, and thus attracted their attention and their troops towards itself, while on the other flank, under cover of the excitement caused to the enemy by this false attack, an officer's patrol from the squadron was able to see and to report upon all that it wished. I do not, therefore, desire to state categorically that a mere officer's patrol will always see more than an entire squadron, but only that this will usually be the case. And it is important in war to economise your strength, and not to use or tell off more troops to any duty

than are absolutely necessary for its discharge. We ought thus to consider carefully, before we send an entire squadron on reconnaissance duty, whether in the given case a simple officer's patrol may not do as well, or even better.

## LETTER XVI

### THE MANŒUVRES OF LARGER UNITS

FOLLOWING the course of instruction, I come to-day to the exercises of the regiment and of the larger units.

Thanks to the new drill regulations (of the 5th of July 1876) and to the action of General von Schmidt, who died, alas, too soon, considerable progress has been made since the last war in the art of leading a cavalry regiment. The regiment has become more mobile and handy since the direction of movements is given by the centre, while since the squadrons need no longer stand in numerical order, but may be designated by the names of the squadron leaders, we have got rid of a certain clumsiness which was formerly inseparable from cavalry (especially if they were worked by a pedant), owing to the fact that inversion was forbidden. Skilful and practised commanders of regiments have learnt by these regulations to manœuvre so well that any improvement seems hardly possible, especially when the squadrons take care not to allow their horses, which have been brought into condition during the month of July, to fall off in any way, and with this object have exercised them once or twice a week, in addition to their other drills, in moving over long distances. Since the

regulations are thus right in principle, I have no further critical remarks to make concerning them; for if some individual officers have perhaps not quite worked up to these principles, yet this is not the place in which to enter upon that question. I will here mention only two points which have generally attracted my attention; these are, the flanking squadrons and the second line.

A regiment can, as we know, either make a frontal charge in line, or it can send a (wing) squadron against the enemy's flank; I am speaking of the case when a charge is made in one line against cavalry. I have almost always seen very intricate manoeuvres carried out by these wing squadrons, and I doubt very much whether such movements could have much effect against a determined enemy, or could do him much harm. For great importance is always attributed to the simultaneous action of the wing squadron which is sent against the enemy's flank; that is to say, this squadron must receive the commands "Charge!" and "Halt!" at the same moment as the rest of the regiment, and must after the halt find itself on the flank of the regiment with its own outer flank thrown forward.<sup>1</sup> In order to carry out this task some intricate manoeuvre must be performed, such as would be impossible before the enemy, for the squadron which attacks his flank has a greater distance to travel than the others, and must thus begin to gallop earlier, or, what would be better, the

<sup>1</sup> "Im offensiven Haken stehen." The "offensive hook" is formed by the wheel of a flank squadron or company to the front, the "defensive hook" is the opposite, where the regiment throws back its outward flank. These are tactical expressions common to all arms.—*N. L. W.*

rest of the regiment must check its pace (that is to say, must not begin to gallop so soon), even though the proximity of the enemy may call for an immediate increase of pace.<sup>1</sup> But if the detached squadron moves to the flank while the regiment is still at the trot, then the interval between them will be so large that the former, let it gallop as hard as it may, cannot come up at exactly the nick of time, so as to make the action simultaneous. Moreover all this, when it is carried out on the drill-ground, requires such an amount of make-believe and such conventional arrangements as can by no means be necessary when there is a visible enemy to be attacked ; for unless the officer commanding the detached squadron knows at what distance the officer commanding the regiment proposes to give the word "Charge !" he will either keep too far away from the regiment and finish his charge at a distance from it, or he will not allow sufficient interval, in which case he will either charge his own regiment from the rear or he will gallop across their front. All this sort of thing looks so terribly bad, that one begins to doubt whether such and such a regiment would be of any use in front of the enemy. But as a matter of fact such a thing cannot take place on service, for then the enemy's flank is a real object which you mean to charge, and which you can charge ; all this is therefore a useless complication, which worries and tries the troops without any object.

We may add that it will be exceedingly difficult to strike the flank of an enemy, if he is in any way

<sup>1</sup> The best movement for the detached squadron is : half-right ! (or half-left !) by half troops, forward ! right ! (or left !)



trained to war, by such a manœuvre as this. For if a squadron detaches itself from the mass and moves round the enemy, he will send out some force against it, and it will thus have to carry through a fight of its own on a small scale, and will be quite unable to attack the flank of the main combat.

Again a charge on the enemy's flank is much more effective when it takes place immediately *after* the clash of the two charging lines than if it be simultaneous with it. For the two lines rebound from each other and then interlock, after which, for some minutes, there is a terrific whirl of struggles, blows, shouts, yells, and curses. Old soldiers have told me, when I was still a young officer, that eleven times out of twelve cavalry charges led to no hand-to-hand fighting. One of the two lines, they said, always went about before they came in contact, while the other rode after it for a certain distance, but never caught it up. I have never seen this in war. I must say, for the honour of our enemies, that I never saw a charge which was not met by the hostile cavalry. The crash always took place, and then the interlocking and the *mêlée*. The scale of victory inclined in favour of that force which had still some closed troops in hand, or whose closed troops pressed in to aid, especially on the flanks, and when this, moreover, took place from one to two minutes after the shock. For the *mêlée* lasted for at least one or two minutes, as far as I have seen, and sometimes from five to ten. Some of the troopers had by that time ridden through the press, while others were still interlocked and were fighting at the halt. After a time single troopers of both sides broke out in rear of the *mêlée* drawing off,

while the depth of the line constantly increased. Some of the enemy pursued these individual fugitives. That side towards which, at the last, most troopers fled, was beaten. At this crisis closed troops produced a great moral and physical effect, especially when they rode up hard from a flank and thus rather rode down than cut down such of the enemy as stood in their way. Any one who has seen such a combat can have no doubt but that the flank attack will have more effect one or two minutes after the shock, when the *mêlée* is in full swing, than if it were simultaneous with the crash. One to two minutes! What an enormous time that is for galloping cavalry. I mean by this that the success of the flanking squadrons will be much more certain if they advance as flank squadrons of the attacking line up to the moment when the word is given to charge, and then leave the latter by a slight change of direction at a moderate gallop; they will then wheel up and charge in close order into the stationary *mêlée* on the flank of the enemy; he will not have observed them up to the moment when he also gives the word to charge to his troops, and will thus have no time to make dispositions to meet them. It is possible, and even probable, that the enemy may thus be surprised, since, as a rule, the dust plays a great part in such actions as it would envelop the flanking squadrons moving in column of half-troops, and would hide them from the enemy's view.

In the majority of cases of charges against the flank of an enemy, the squadron leader rushes on as he shouts "Charge!" and does not wait for his flank to complete the wheel; the result is that the charge

is made in loose order. Moreover, the object of the charge is in motion, and thus the squadron, if it hopes to be able to keep its close order, must be well trained in moving on its point. I have already, in Letter XIV., mentioned this matter.

What I have said with regard to the complication of these flanking movements, has still greater force when the regiment is formed in two lines, and yet more when the whole regiment (and most, when the whole brigade) forms the second line of a large cavalry mass. The distance to be traversed is then so great, that it is exceedingly difficult to surprise the enemy, if the great mass of cavalry divides itself for the purpose of gaining his flank. In this case the ordinary complaint is, that the second line comes up too late, because it has not ridden hard enough. It would be easier to arrange for a simultaneous attack of the two lines, if the first were sent against the enemy's flank, and the second against his front, a manœuvre which is laid down in para. 200 of the Regulations. General von Schmidt preferred this manœuvre to any other, when his object was to gain the enemy's flank with one of the lines. You may think that this system would by no means facilitate a surprise of the enemy, since a flanking movement of the first line would be earlier and more easily seen than one of the second. Yet, when I have seen this evolution carried out at the manœuvres, the enemy has invariably been surprised, and always owing to the cover given by the dust. For if the first line (which the second follows) wheels away (either by half-wheel and a return to the original direction, or by wheeling by half-troops, followed by

a change of direction), and the second line remains invisible owing to the dust of the first, the enemy imagines that the whole mass of cavalry is taking ground to a flank; he hopes to ride them down while they are carrying out this movement, and thus changes his front and charges. The first line then wheels to its proper front and charges, while the second goes straight on into the *mêlée*, and strikes the enemy, as he changes his direction, directly on the flank, or even in rear. There can be no doubt as to the success of such a charge if it be carried out with precision.

But it must not be forgotten that such a charge should not be risked, except with cavalry which is exceedingly well disciplined and trained, unless you are prepared to lose more with respect to the closeness of the order, and the weight of the shock than you will gain by the evolution and the flanking movement. Just think of the feelings of the troopers of the first line who have to move quietly to a flank, and to wait for the signal to charge, while they see the enemy's mass of cavalry galloping headlong down upon their own flank. Moreover, a regiment must be well accustomed to manœuvre at a gallop, if at the trumpet-call "Front!" it can immediately change from column of half-troops into a well closed-up charging line; when we consider all this, we are inclined to say that the whole thing is so complicated that it cannot succeed. But similar stratagems have succeeded before the enemy. Old Blücher, when he was a colonel of hussars, drew on the clumsy French cuirassiers by wheeling about by half-troops and trotting away as if in flight; as soon as the pursuit had somewhat disordered the enemy, he sounded

the "Front!" and the "Charge!" General von Hymmen, as a captain, did a similar thing with a squadron at Blumenau. He wheeled about and made the two troops diverge as they retired, until the enemy had followed him so far, that on the calls "Front!" and "Charge!" they received a charge on both flanks. In cavalry slang, this is called "Letting down the flap." If, in former days, it was possible to carry out such a movement as this (which will be generally acknowledged to be more difficult than the other, as it is certainly harder to direct cavalry who are trotting away before the enemy than it is to lead a flanking attack), the easier of the two manœuvres must decidedly be possible in these days. But we must not forget that the troops must be exceedingly well trained if this *coup* is to succeed. No one must venture to attempt it with newly raised troops (such as *landwehr* cavalry), nor with a force of cavalry which, owing to the length of the campaign, and the losses which it has suffered, has been filled up with half-trained and inferior men and horses.

This must not, of course, be taken as a universal receipt for use in every possible case; indeed, the regulations do not lay down any decided directions for the conduct of the second line, but merely (para. 217) point out its duty, and mention (paras. 184 and 196) some movements as examples.

At the time when these regulations were only provisionally issued, and were sent out for trial by the troops, I heard many complaints from the cavalry that the distance between the first and the second line, as therein laid down (300 paces), was too great; at a later date, when the regulations had

been definitely issued, all complaints, of course, ceased against what then became a sanctioned and prescribed form. It was thought that the second line could not be engaged in time if it followed the first at so great a distance. I cannot at all agree with these complaints, for I think that the distance of 300 paces is rather too short than too long. There is certainly some difficulty, in peace exercises, in so directing the second line at a distance of 300 paces, that it engages at the right time, that is to say, so that the flank attack coincides exactly with that of the first line. In peace much more time is lost than in war in making dispositions for attack, especially when working against an imaginary enemy, since the officer commanding the division has first to inform the leaders of lines whether the charge is to succeed or no, and thus, whether they are to out-flank the enemy, to cover their own flank, or to support the first line. All this has to be laid down, to be understood, and then to be carried out. Since, after that, the distance of 300 paces has to be traversed, it naturally appears very long. In peace the officer commanding the division keeps with the first and second lines, but in war with the third, since that is the only body of troops over which he retains the command; he would lose his hold upon this also if he went forward into the *mêlée*. In war again no further directions are given to the second line than that it is to overlap the right or the left of the first. The officer commanding the line must himself decide upon and order everything else, for in war, when the attack has once commenced, the commander of the division (who is either with the third line, or on high

ground near his artillery) can no longer send any order in time, either to outflank the enemy, to cover the flank against him, to support the first line, to disengage it, or to prolong it. The officer commanding the line has to do all this, for he must observe all the dispositions made by the enemy, and act accordingly. Thus, as soon as the order is given to charge, the second line also passes altogether out of the hand of the officer commanding the division.

All this is quite different in peace, for then the ideas of the divisional commander with reference to the enemy have to be first explained and understood.

In war, as I have already said, it does no harm, and may perhaps be of great advantage, if the second line does not strike the enemy's flank at the exact moment when the first line reaches his front, but does so from one to two minutes later; therefore, even 200 paces more between the lines would be unobjectionable, since these could be traversed in half a minute; but in peace it is expected that the attacks shall be simultaneous to a second.

For this reason great latitude is allowed by the regulations to the second line, even though it is expressly laid down (para. 217) that it is to follow the first line at a distance of 300 paces, and overlapping the named flank; for it is added that this relation is to be correctly kept up until the second line itself begins to attack. But the commander of the second line is himself allowed to be the judge of when the moment for this attack has arrived.

When, therefore, certain cavalry leaders have considered that the second line is intended to conform to every movement and pace of the first, while

still keeping its relative position and distance, up to the moment when the latter passes from the gallop to the charge, they entirely mistake the meaning of the regulations, and judge only by peace manœuvres ; for this moment may, under various circumstances, appear much too soon or much too late for the independent movement of the second line. This depends upon what the enemy does, how strong he is, and what dispositions should be made against him. For it may be that the enemy is so weak, that any action of the second line is unnecessary, and that it will thus preserve its distance ; or it may be that, some time before the order is given to charge, the enemy's front is found to be wider than was imagined, and thus it becomes necessary to prolong the front of the first line, etc. etc.

It has been reckoned from the above that if the second line follows the first, while overlapping it, at a gallop at a distance of 300 paces, that it will lose 400 paces per minute when the latter passes to the charge, and will thus almost immediately be 700 paces from it ; but this computation is founded on the faulty supposition that the second line will not venture to change its distance from the first until the moment when the latter passes to the charge. This supposition is correct only when, owing to some mistake, the first line charges without the second line knowing what it is to do. In war this would be the fault of the second line ; but in peace, on the drill-ground, the divisional commander would be blamed for not having told the second line, before the charge took place, what sort of an attack he wished to carry out. For in war the commander



of the second line has himself to decide as to which of the duties of "the second line" (as laid down in para. 217 of the Regulations) he has to discharge, namely: (a) To outflank the enemy; (b) to cover the flank of the first line; (c) to support it; (d) to disengage it without a combat; or (e) to prolong it. In this case the divisional commander merely informs the first line as to the object which it is to attack, and gives an order to the second line as to which flank of the first it is to overlap; he then goes back to the third line or to his artillery.

But in peace, especially when acting against an imaginary enemy, the fancy of the divisional commander has to supply many details with regard to all these matters, since there is no enemy to furnish them. Even when acting against an enemy whose position is marked either by flags or by weak detachments, he has to direct their movements, and this materially increases his difficulty in leading the whole. He must, moreover, go himself to the front, that is to say, into the first or second line, in order to correct mistakes in time, and in order to give the whole a certain resemblance to war, so that all the time and exertion that is expended in the movements may not be altogether wasted or even produce false impressions. Again he must be in front in order to observe and criticise such mistakes as may be made, and also to teach his subordinates. Owing to this forward position of the divisional commander in peace manœuvres an unavoidable difference exists between them and actual war; the disadvantage of this is that, if peace continues for a long time, every

\*one comes to believe that a division ought to be led in this manner in war. For this reason it is necessary to call to mind at every opportunity that the situation is very different in war ; otherwise what we have been accustomed to in peace will be carried out in the next war and we shall in consequence suffer serious loss.

It would almost appear from all this that it is easier to command a cavalry division in war than in peace. To a certain extent this is the case ; at any rate it is simpler ; in war everything is simple, but the simplest thing is difficult. The difficulty in war does not lie in the complexity of the evolutions and in the number of dispositions to be made simultaneously, but in the deep feeling of responsibility which weighs upon the divisional commander, as to the right choice of the moment for the general attack, for if it be too early or too late the losses will be enormously increased, and the proposed success may turn out a failure.

In a similar manner, as I have said above, the second line will in war have less difficulty in coming up at the right moment, for during the *mêlée* of the first line it will have a margin of some minutes, during which it can pass over 1000 paces at a gallop. The difficulty for the leader of the second line consists in a right appreciation of the situation, and in the necessity of deciding which of the five duties of the second line is the most important at the moment. For if he makes any mistake he will be beaten back. If, for example, he moves his line so as to cover the flank of the first line and at the same time charge the enemy's flank (para. 197), at a time when it would

have been better only to prolong the first line, his inner regiment will be rolled up from the outer flank, and his outer regiment from the inner. Moreover, the commander of the line has to make his decision, and to issue the necessary orders for carrying it out, while moving at a sharp drill gallop; for he must himself move with the first line, on that flank which is overlapped by his second line.

Picture to yourself the leader of the line as he gallops along; dust, and perhaps rain also, blinds his eyes, a long gallop has made him lose his breath, his horse has pecked as he jumped some ditch or hedge, and he has only just saved him from a fall; he arrives at the top of an undulation of the ground and sees the enemy galloping towards him; he has now at once to make up his mind what he will do, and to give immediate orders. He has no time to think; even if he pulls up and gives his orders at the halt, his line is only 300 paces behind him, in half a minute it will be upon him, and even then his orders may be too late. Would he not then be inclined to think that the distance of 300 paces was rather too short than too long?

If you clearly put before yourself the position which I have described above, it will be evident to you how much harder it is to lead a cavalry division or a cavalry brigade of a division than it is to command an infantry division or an infantry brigade of a division; since with the latter there is plenty of time for everything, and you can, with your field-glass and your map in your hand, quietly weigh the pros and cons, and then give the needful orders.

What a number of qualities must a leader of

cavalry (whether of a regiment, a brigade, or a division) possess, if he is to be really efficient at his work ! He must first be a good rider across country, better indeed than any of those under him. He must, moreover, be hard, so that neither exertions by day and night nor the longest gallop may affect him in the least. He must have the eye of an eagle, for he has no time to use his field-glass, which will probably be useless owing to the dust and rain. He must be a man of quick decision and of strong will, for he has no time for consideration or for counter-orders. His position demands all these qualities, in addition to those which are expected from every officer of any arm.

These difficulties are even greater when the cavalry mass comes across the enemy while it is on the march, and has to change its order of march for the order of battle in three lines. I have already spoken of this in a former letter (XII.) If the cavalry mass is marching on several parallel roads, it may be necessary that the brigade commander, and even the regimental commander should possess the very highest strategical talent, if he is to reconcile the orders which he has received with the perhaps entirely changed conditions which obtain with regard both to himself and the enemy. It is not sufficient that he is a skilled and practised leader of his own arm ; he must have mastered strategy and both the elementary and applied tactics of all arms.

When one realises that all these requirements are demanded from a leader of cavalry, one is inclined to hesitate before uttering a severe reproof, if by chance a mistake is sometimes made.

## LETTER XVII.

### THE QUESTION OF ORGANISING CAVALRY DIVISIONS DURING PEACE

YOU are quite right in thinking from the conclusion of my last letter that the leaders of lines should be given every possible opportunity of working their commands in division, and the wish, which I have already expressed in an earlier letter, that the cavalry might be ordered to serve up to the 1st of November, so that they might, after the great autumn manœuvres, find sufficient time in October to practise the exercises of cavalry divisions, is a proof that I agree with you in this matter.

But when you further say that you are of opinion that we must in consequence of necessity have cavalry divisions permanently organised in peace, in the same manner as they would be before the enemy in case of war, I am somewhat inclined to differ with you, for there is quite as much to be said against such a principle as for it.

If the cavalry divisions were organised in time of peace exactly as they would be in war, then, since the infantry divisions also need divisional cavalry, we should be obliged, after deducting a cavalry regiment for each infantry division, to collect the remaining

cavalry into divisions, each of six regiments. From this arrangement would in course of time spring two kinds of cavalry, the cavalry divisions and the divisional cavalry. The former, being organised in large units and living in an atmosphere of its own, would after a certain time look down with a sort of superiority on the isolated regiments who were told off to the infantry divisions, and the army would come to form an idea that there were two classes of cavalry, and thus a distinction would be drawn which could in no way assist the general development of the arm. For nothing but a comradeship of the entire arm, animated however by emulation, can forward the development of the arm as a whole.

Moreover, this distinct separation into cavalry divisions and divisional cavalry has no existence even in war. The regiments frequently interchange and relieve each other. This would be simply impossible, if a difference of organisation existed in peace, and they each underwent a peculiar course of instruction.

I think that it is much more desirable that the whole of the cavalry should every year be practised in division, and should further every year learn the duties of divisional cavalry by being attached to the infantry. But if permanent cavalry divisions existed in peace, and were entirely separated from the divisional cavalry, this double training could not be kept up; the divisional cavalry regiments would then never take part in the great cavalry manœuvres, while the regiments of the cavalry divisions would never share in the manœuvres of all arms.

The whole of the cavalry of each army corps might be collected together with the object of as-

sembling them in cavalry divisions, as has been done already in the case of the Guard Corps, and of the XII. and XV. Army Corps. But by so doing we should, in the case of the other corps, work directly against the principal object which it is desired to attain by the union into cavalry divisions, namely, to bring the peace organisation into harmony with that for war, and thus to facilitate and hasten the passage from the one to the other. Since we have, as a rule, only five, and at most six, cavalry regiments in each army corps, and must from these give a regiment to each of the two divisions, we could not in war provide as many cavalry divisions as we have army corps, unless we are willing to allow the formation of cavalry divisions of the strength of only three regiments. That would be absurd. Then why is it that in time of peace there are only two cavalry divisions in the Prussian army? Because only two of our army corps have eight regiments of cavalry. These can, therefore, in war give a regiment as divisional cavalry to each division, while the remainder take up their war organisation in a complete unit, just as they were in peace.

Some hot cavalry soldier will perhaps on this ground propose that we should organise more cavalry, say, eight regiments for each army corps. But we are not likely to augment the number of our cavalry simply in order to carry out this hobby of creating cavalry divisions in time of peace. The proportion of cavalry to infantry depends upon quite other considerations, and these are of far greater moment than the mere formation of independent cavalry divisions.

In addition to the demand for the formation of

cavalry divisions in time of peace, there is some talk in cavalry circles of an organic separation of these divisions from the army corps, and of their union in cavalry inspections, which should be placed under an inspector-general of cavalry. It is an extraordinary coincidence that this cry from the cavalry for such isolation should arise at the very time when the whole of the artillery has expressed the desire to exchange their isolation for a closer connection with the army corps. This phenomenon alone causes grave doubts as to the practical value of such an enormous change; for the desire of the artillery for a more intimate connection by organisation with the other arms in time of peace, proves that isolation also has its disadvantages. We must, moreover, remember that we have historical precedents for such an organisation. Frederic the Great created similar inspections of cavalry after the peace of Hubertsburg. He himself was the inspector-general of cavalry. This organisation did very well so long as such men as Seydlitz, etc., lived, who could breathe life into its form. But at a later date the cavalry gained nothing by it, as is proved by their behaviour in the war of 1806. Though the latest and most profound, historical inquiries (see Goltz's *Roszbach and Jena*) have shown us that the cavalry of 1806 did not altogether deserve the bitter blame which has up till now been lavished on them, yet we cannot avoid the conviction that the long isolation of the cavalry had a good deal to do with the fact that they did not feel themselves sufficiently at one with the other arms to induce them to stand by them and to aid them in every way.



How can this have happened? I explained in my last letter how many qualities must be combined in one man in order to make a really good leader for a brigade or a division of cavalry, strength, youth, a good seat on a horse, staying power, sharp sight, and theoretical training (qualities which frequently weaken each other, since study injures the eyes, etc.), and how very rarely a cavalry leader will possess all these advantages; the same observations will apply in a yet higher degree to an inspector of cavalry. If the inspector be merely selected from the arm as a good regimental officer, the cavalry must and will adopt a one-sided system of training, and will at last, if peace endures for a long time, finally give its whole attention to trifles, and will exalt into importance small cavalry fancies (such as fat horses and riding-school tricks) to the injury of the true work of cavalry in war. Until Wrangel, like a strong healthy wind, swept away all such pedantries we knew by experience that under old and senior cavalry leaders, who had a distinguished past, such a striving after "uniformity" in every detail was made throughout the regiments under their command, as often resulted in serious injury to them all. Thus a riding-master was declared to be quite useless in the school if, at the end of a ride, he deployed his detachment along a different wall or on another front from that which they had faced at the beginning; or if he did not follow exactly the prescribed order of the various exercises and words of command. One of these officers found great fault with the fact that, while one of his regiments had straw litter in its stables, the other had not, and at once ordered strict "uniformity,"

though the stables of the one were on dry sandy ground, while those of the other were close to a river, of which the damp made the straw litter unwholesome, which was not the case with the former. Everything which did not tend to uniformity was therefore neglected, whether field service, practice in taking advantage of ground, or the support of the other arms in battle. Let no one say that these must have been the follies of a lunatic. I repeat that these were most distinguished officers, and I am convinced that the same one-sided ideas will grow up in steady progression in the case of a lasting peace, if the arm be not, by its very organisation, convinced of the universality of its duties. But this can only be the case if the cavalry remains closely connected with the other arms, and if it continues to be attached in peace to the commands of army corps.

It is possible to do the one and not to leave the other undone ; if the cavalry neither can nor will be augmented, then the regiments of any two army corps can in peace be collected into a division and be told off to one of the corps. In this case out of the cavalry of two army corps would, in time of peace, be formed a division ten regiments strong, organised in three brigades ; but on mobilisation for active service each of the four infantry divisions must receive one cavalry regiment as divisional cavalry, and thus when on a war footing the division would consist of three brigades each of two regiments. This would not cause any very great amount of shifting, for if we work out this plan we could tell them off as follows :—the cavalry of the I. and II. Corps, in a division of ten regiments, to the I. Corps ;

those of the V. and VI. Corps, in the same strength, to either of these corps ; those of the III. and IV. Corps, eleven regiments, to the III. Corps ; those of the IX. and X. Corps, ten regiments, to the X. Corps ; and those of the XI. and XIV., in the same strength, to the XIV. Corps ; while the divisions of the Guard, XII. and XV. Army Corps could keep their present peace organisation. Only that division which would be formed from the VII. and VIII. Corps, and which would be attached (say) to the VIII. Corps, would be too weak (eight regiments), and would thus, after detaching the divisional cavalry, go on active service with a division of only four regiments, just as the XII. Corps does. The expense of this change of organisation would not be very great, for one brigade staff would be abolished for each divisional staff created.

But let us endeavour to realise the consequence of such a division of commands ; the principle of the territorial boundaries of our army corps districts would be altogether broken through, great friction and conflict of authority would be unavoidable, the regulation of the reserves and the machinery of the mobilisation would be much impeded and complicated, and thus the principle, which has up to now been upheld, of the greatest possible simplicity in these matters would be given up.

Moreover, the cavalry, since they would no longer belong to the army corps in whose district they would be quartered, must be isolated from the other arms ; while troops of different army corps would rarely be able to practise manœuvres against each other (whether of a theoretical or practical nature),

such as field service exercises carried out by all the troops of any garrison, etc.; and thus all the arms would become estranged from each other, while the instruction of each would grow narrower in its scope. I can remember to have met, at the beginning of my service, an infantry regiment whose field officers had never seen a regiment of cuirassiers. They offered this fact as an excuse for the mistakes which they made in manœuvres with the other arms. Something of this sort would occur again.

I must now touch on a point of a more delicate character. Have we, for the command of these independent divisions, a sufficient number of officers, who, in addition to the necessary experience and knowledge of their work, have also preserved their sight, their youth, and their endurance in the saddle? What would be the consequence, if independent cavalry divisions were established throughout the army? The divisions of the army corps would be simple infantry divisions, and would be given to infantry men only, while the cavalry divisions would be given to cavalry officers only. Any cavalry general, who had not retained the necessary youth, power of endurance, and quickness of thought for a cavalry division, would be obliged to leave the service, and the army would thus lose many a practised and good man, who, at the head of a division, or even of an army corps, where it is not so necessary to be a good horseman, might, owing to his experience and knowledge, do excellent service. The present condition of affairs seems to me far preferable. We have only a few exceptional cavalry divisions, where they are necessary and possible;

otherwise the cavalry are periodically collected for practice in the exercises of cavalry divisions under the officers commanding brigades, from among whom, as judged by this test, the most skilful are selected for the mobilisation of the following year. But in case of war all considerations of rank are set aside (for we have seen a general commanding the cavalry, while royal princes had the command of divisions only), and in this case the skilled commanders of cavalry divisions may be selected from the senior officers commanding army corps divisions, and the junior officers in command of cavalry brigades. Ought we to give up this most practical system merely in order to adopt an organisation which has given no proof of its excellence, and which indeed, on the contrary, was not a success on the only occasion when it was tried?

Is there really any such urgent necessity for organising the cavalry divisions in time of peace?

There are two principal reasons why this does appear desirable.

The first is the necessity of practising cavalry regiments in divisional exercises; and the second the desirability of making the peace organisation conform to that used in war, in order that at the critical moment the difficulties of mobilisation may be as far as possible smoothed away. I have already shown in detail that it is absolutely necessary to practise cavalry masses in divisional exercises, and that it is most desirable that every cavalry regiment should annually have an opportunity of taking part in such exercises; I have, moreover, I think, shown that this can be arranged. But I cannot admit that

distinct cavalry divisions should therefore be organised during peace. On the contrary if, as has always been the case, the officers commanding brigades are in turn entrusted with the conduct of these exercises, many more cavalry leaders can be practised and instructed in the working of such masses of cavalry (more especially if the exercises take place in each army corps after the manoeuvres of all arms), and a choice can be made from among these at the outbreak of war.

With reference to the transition from peace to war footing, the staff of the cavalry divisions suffered very much at the last mobilisation, while the friction and work was much increased by the fact that not only had they been but just called together and scarcely knew each other personally, but also because they had not seen any of their regiments, and did not at first know where they were. I can picture to myself the annoyance of an officer commanding a division who arrives with his staff at the end of that portion of his journey which is to be made by rail, and who has no idea where his regiments are. But in this case he has always looked for them, and found them. The officer commanding a division can have nothing to do with the transport of his troops by rail (that is managed by the railway committee of the Grand General Staff), and it would be impossible to let him know their whereabouts beforehand, since circumstances may compel changes to be made; as a matter of fact the regiments were carefully looked after and were always found near to each other. Many staffs which had the same organisation in war as in peace went through exactly the same experi-

ences. For example, the staff of the Guard Corps started from Berlin for Homburg in the Palatinate. During the two days' journey we suddenly found that we were passing stations which were not in our line of route. When the train stopped the guard informed us that orders for the change had been received by telegraph. Shortly afterwards we were astonished and amused to find the hours for meals altered; for example, we stopped for supper at 8 A.M., and for breakfast at 9 P.M. At last we arrived. But where? On asking we discovered that we were at Mannheim. No one in the whole of the staff knew at first where the troops were. We sought for them (by telegraph), and found them. After a day of rest we began our march, and when, at the close of the second day, we arrived at Kaiserslautern, we found the cavalry division of the Guard there before us, though they had left Berlin after us; we even found that our ammunition columns had already been unloaded from the railway. This sort of thing will always happen, if the enemy's dispositions necessitate changes in the railway arrangements. At any rate, in this case the non-existence of the cavalry division in peace had nothing to do with the matter. Moreover, at the moment of mobilisation many changes are made in the higher commands, and thus many officers are strangers to their troops. With regard to this, I will only mention that at the mobilisation in 1870 both infantry divisions of the Guard received new commanders, and that this was the case with the majority of the army corps. It is by no means of very great importance that the staffs of the higher commands should undergo no change on mobilisation.

The most essential point is that the regiments shall pass at once, easily and quickly, from a peace to a war footing. Compact and well-trained regiments may without difficulty be transferred to another brigade or division. This has been often done in every arm, and has never led to any inconvenience.

It is only necessary that these regiments shall have been trained under the same system of command and in the same tactical formations as obtain in war. If, therefore, all cavalry regiments took part annually in the exercises of the cavalry division, and if they were practised not only in the regulation formations and in the principles laid down for the conduct of large bodies of troops, but also in marching by divisions and in the system of command in that unit, there would then be much less difficulty in collecting them quickly in brigades and divisions at the outbreak of war. In answer to the complaints which were made, at the beginning of the last campaign, of the want of cohesion of the cavalry divisions, we may say that up to that time only a very small fraction of the regiments had ever practised movements in division.

All the discussions which I have had with those who are in favour of the formation of cavalry divisions in time of peace have only strengthened me in my former opinion ; I am afraid that such an organisation, however it may be carried out, must, if it be applied to the whole army, entail more evils and disadvantages than it can offer benefits.

I have in the course of my letter several times touched upon the question of an increase of the cavalry, and have suggested that the number of



cavalry which we need depends upon quite other considerations than the peace organisation of that arm.

Allow me to say a few words with reference to the number of the cavalry in proportion to that of the other arms. Various opinions on this matter are given in different text-books of tactics. For example, some of them say that we ought to have as many squadrons as we have battalions, others that the cavalry should form such and such a percentage of the army. Such suggestions are either entirely empirical, as they used to be in former days, or are founded on utterly groundless theory. I have already remarked this in my first letter.

Now that universal service is accepted, we shall at the outbreak of war take every available horse, just as we take every available man, for the defence of the Fatherland. Considering the great importance of the possession of a large mass of cavalry, and the immense advantage which a superior force of cavalry will give us at once over the enemy, in that it will blindfold him and open our eyes, will shut him in closely and give us all freedom, and will tie his hands while it will assist us to strike, we cannot have too many cavalry; the answer to the question is therefore simple: we must have as many regiments of cavalry as possible. If we could inquire of the committee on remounts which sits at the ministry of war, we should certainly be told that the supply of horses in our country would not permit us to obtain annually suitable remounts for more cavalry than we have. If any other answer could be given, I am quite convinced that our government would long ago,

either after the last war or at the opportunity given by the last augmentation of our regiments of infantry, have asked for the means to form more regiments of cavalry.

In a similar manner the theoretical question concerning heavy and light cavalry is a purely idle one. I learnt in my youth that the proportion ought to be one-quarter heavy, one-half light, and one-quarter medium cavalry. I merely laugh at this now. You cannot mount heavy men on light horses. Heavy men on heavy horses make heavy cavalry, and light men on light horses make light cavalry. The Huns had no heavy cavalry, and at the time of the knights of the Middle Ages Germany had no light cavalry. Since we have had Arab blood in our breed of horses, we have light cavalry and plenty of it. Thus the proportion between heavy and light cavalry settles itself, and is forced upon the government as a necessity, not as a matter in which they have a choice.

## LETTER XVIII

### CAVALRY IN COMBINATION WITH INFANTRY

SINCE, as I have already shown in one of my earlier letters, cavalry will, nine times out of ten, engage the enemy's cavalry, if that arm be properly used by both sides, and will only in one case out of ten attack the other arms, we cannot be surprised that their thoughts and aims are generally governed by the consideration as to how they are to act against cavalry. We may even maintain that cavalry thus prepare themselves for the decisive services which they render to the army, for it is not until the enemy's cavalry have been overcome, and either destroyed or driven from the field, that our own can ensure to the army such strategical superiority as it obtained in 1870. But it would be a serious error if we were, therefore, to conclude that the cavalry should on this ground be exercised only in divisions, and practise their action against hostile cavalry only. We must not forget that the defeat of the enemy's cavalry is only a means to the great end, and that the action which leads directly to the attainment of this end does not begin until the hostile cavalry have been overthrown. This action consists in supporting the infantry in the many

various manners which have been already described. But cavalry will never be able to carry out this action properly, unless they always set to work on the fixed principle that they exist only to serve the infantry, to which they are distinctly an auxiliary arm. For this reason they must make themselves acquainted with the peculiarities, mode of action, and the needs of that arm, and must, therefore, be constantly practised in working in conjunction with it. This combination of the two arms is just as important for the infantry, whose leaders must equally learn to know the peculiarities of cavalry, so that they may form a correct idea as to how much may be expected or demanded from the mounted arm. If this be not the case, they will in war either make a too limited use of the cavalry under their command, or will ruin them by excessive demands, or by expecting or calling upon them to do something which is impossible to them ; as, for example, in the case where a general ordered his Ulans to lie down, in order to get cover from the enemy's infantry fire. This is also a very weighty reason in favour of the closest possible connection between cavalry and infantry in peace, and against the isolation of the former in separate cavalry divisions. It follows, therefore, that it is absolutely necessary that the cavalry (I mean all the cavalry) shall every year take part, in combination with the infantry, in the manœuvres of all arms.

You will perhaps laugh and say that what I urge is very true, but is by no means new. Yet we see, that that part of the cavalry which is exercised in cavalry divisions takes, as a rule, no part in the

manœuvres of the other arms in the same year. I consider this to be a great defect. I have already, in a former letter, stated my opinion that the cavalry might carry out both tasks, if the troopers were kept with the standard until the 1st of November, and thus extended their actual service to three full years.

The opinion has frequently been loudly expressed that, if the whole of the cavalry took part in such manœuvres as can be carried out within the narrow limits of a division, and if thus a division of 12 or 13 battalions found itself working with 10 to 15 squadrons, false conclusions would be arrived at, such as could not obtain under war conditions, when the division of 12 or 13 battalions could have only about 4 squadrons attached to it. From this fact springs the misuse which is made of the cavalry in peace, and to which in peace we grow accustomed, though it would not be possible in war.

It cannot be denied that the cavalry at the manœuvres is more numerous and more freely used than could possibly be the case in war. I have already, in one of my former letters, drawn attention to the lavish employment of officers' patrols. But is not this equally the case with all the arms? How many attacks has one and the same body of troops to carry out in one day: attacks so serious that, if a single one of them was fought out in earnest, the troops which made it would be unfit for any further action on the same day! The greatest possible use must be made of the few days of the manœuvres for practice and instruction in the conditions of battle. Moreover, it is quite within the power of the officer who directs the exercises to diminish, if he pleases,

the proportion of cavalry to infantry. An army corps, of which the 5 cavalry regiments, each of 5 squadrons, take part in the manœuvres, can tell off 4 squadrons to each division (by sending to it either a regiment of 4 squadrons or 4 of the fifth squadrons), and can then form a cavalry division of 4 regiments of 4 squadrons; this can be kept as a unit, and can be attached to one side or the other at pleasure. A division which proposes to work its two brigades against each other, can act in a similar manner, and keep an available cavalry brigade in reserve.

It is of the greater importance that the whole of the cavalry shall every year take part in joint manœuvres with the infantry, inasmuch as they can thus practise their service in reconnoitring and screening with reference to a real actual object, and in order that they may have as often as possible an opportunity of making an attack on infantry and artillery. Otherwise, owing to the constantly increasing cry as to the destructive effect of long-range fire, there is some danger that the cavalry will learn to consider each and every attack on the other arms as impossible, and will simply endeavour to get out of the reach of fire as soon as either of them comes in sight. Let no one imagine that our Prussian pluck will save us from this. As the troops are taught in peace, so will they act in war, at least at first; and no one can deny the importance of the issue of the first battles in a war. It was the case that in former days the artillery were always ordered at manœuvres to retire as soon as they came under infantry fire; it thus became an ac-

cepted principle that they were to do so. For example, a battery once retired in war with the excuse that it was under infantry fire; as a matter of fact a sheep, which they meant to kill at their bivouac, had been shot by a stray infantry bullet. It was not until the last war that the artillery succeeded in getting over this prejudice.

Besides, at the manœuvres, the cavalry are often very hardly used by the umpires, however fortunate they may be in other respects. If each and every charge of cavalry on infantry is declared to be repulsed, if they are always made to fall back whenever they simply hear the fire of infantry or artillery, even though no one knows whether this fire was aimed at them or not, in this case cavalry must learn to dislike allowing themselves to be seen. They, therefore, withdraw themselves far away from all combination with the infantry, and halt there, almost detached, doing nothing, until at length the presence of the hostile cavalry, which are out of humour for exactly the same reason, gives them an opportunity of passing the time in objectless little cavalry fights.

Supposing that some cavalry have made a bold and well executed charge, perhaps over hedges and ditches, and have fallen in the closest possible order upon some infantry, and then find themselves put out of action, because they attacked unbroken infantry (and at the manœuvres all infantry are naturally unbroken), have we any right to blame their leader if he loses all desire to charge infantry, since he will thus make himself ridiculous in the eyes of the onlookers, and will, moreover, wound the

proper pride of his men? For it is much worse, and more humiliating to a mounted than to a dismounted body of men, to be put out of action, for the former have to dismount as a sign of their condition, while to be dismounted on the field of battle is held to be a form of punishment.

The umpire certainly finds himself in a difficult position, for if he declares that the cavalry charge has succeeded, he must allow that the infantry, upon whom the charge was directed, have been destroyed; while he must on no account lead the infantry to believe that they can be worsted, if they quietly and firmly await the charge, even though that charge be carried out in the best possible order. If he were to do so, he would instil into the infantry a dread of cavalry, which is quite baseless, and which might, in war, have the most disastrous results.

I have found that it is quite possible to escape from this dilemma without injuring the pride of either of the two arms. Let the umpire, supposing a well managed cavalry charge has been made on infantry who have received it well, say that either of the two arms would have been successful, if the other had belonged to any other army in the world; and let him then decide, according to what may best suit the general situation, that one of them (and which) is to retire, adding expressly that he only does this in order to separate the combatants; he may order this to take the form of a voluntary retreat, which is not to be followed up until the troops are again divided by their proper interval; in this manner each arm will preserve its proper pride, and its desire for fresh action. Such a decision will



also obviate the many detestable animosities, which often arise between commanders, and even between whole bodies of troops, when one of them has been the cause of the other being put out of action.

This "putting out of action" is generally used at the manœuvres with too much freedom, so that the pleasure in them, and any enjoyment of the training, as well as the independent action of the junior officers, is very much diminished by its abuse. If every body of troops which has got into a difficult position, or has made an unsuccessful attack, is to be put out of action, their leaders will not willingly run any chance of impairing their reputation at the manœuvres, and will, therefore, acquire the habit of avoiding risk, while, on the contrary, they ought to accustom themselves to take a pleasure in all danger. This has especial force in the case of cavalry, when it is put out of action, for attacking intact infantry. How is it possible, at the distance at which the decision as to the attack must be made, to see whether the enemy's infantry are intact or not? In war an opinion can sometimes be formed on this question from the number of dead and wounded which may be seen to have fallen, from the loss of order, or from the quantity of fugitives. But it is not always possible to be certain on this point, and some most valuable moments might be lost, if one waited too long in order to make sure. But in peace there are no such signs, and it is quite impossible to know whether the umpire will, after the charge, consider the infantry to have been in disorder or intact. Moreover, the Regulations themselves (para. 722, No. 2) lay down how infantry, which are not in disorder, are

to be attacked by cavalry. But if the cavalry does charge, it is put out of action! Again, in war, the cavalry know, by the shell and bullets which fall among them, whether the enemy has observed them and is firing on them; but in peace they are doubtful whether the enemy is really firing on them, or on some totally different object, and whether it may thus, in the latter case, be surprised by a charge. In manœuvres, "putting out of action" must be used as little as possible. Such a measure is a very severe punishment. It ought indeed not to be so, and the regulations for the manœuvres do not describe it as such. But as a matter of fact, it is a punishment, and is so considered by the troops. For infantry who are ordered to pile arms or cavalry who are made to dismount, and to remain out of action for half an hour or an hour in this position, are distinctly punished in the presence of the other troops. I have always found that the manœuvres were much more instructive, and that the troops took much more pleasure in them, even when they were called upon to make great exertions, if "putting out of action" was used only exceptionally, as a punishment for indolence and want of attention, as, for example, when dismounted cavalry allowed themselves to be attacked by infantry, or when infantry or artillery on the march were fallen upon by cavalry, who received no fire as they advanced, etc.

It is also necessary that all commanders of infantry, down to officers commanding brigades, regiments, and battalions, should be annually exercised in conjunction with cavalry, not only with so many, or so few, as are told off to a division in war,

but with the larger masses, in order that they may gather sound ideas as to the space and time in which cavalry move and form in the field, and as to the relation of the infantry to cavalry, whether they be their own or those of the enemy. All this may be calculated by arithmetic, but there is no time to work it out during a battle. Unless one has repeatedly seen how such masses move and form up in the field, it is impossible to acquire that sort of instinctive feeling which tells one within what time they can or must be expected to arrive at such and such a spot.

The cavalry also can only learn by such practice, in close combination with the infantry, how they can efficiently assist the latter in action. It is true that the conditions of battle are very different from those which obtain during the manœuvres, but they have even less resemblance to mere theoretical speculations, and many matters with regard to which no resolution has been arrived at, and concerning which opinions still differ, may be decided by the mere appearance of the troops when they have been adapted to the ground. I remember how an officer commanding a cavalry brigade (one of our most renowned cavalry officers) was of the opinion that he could efficiently assist the infantry in battle, if he began his charge by pushing his brigade, in column of squadrons, through the intervals of the fighting infantry, and deployed them after passing through. I gave him free opportunity at the next manœuvres, and simply sent him word, when the artillery and infantry contest was at its height, that this was the moment to charge.

Down came the brigade from the rear upon the

fighting infantry, and wanted to be allowed to pass through. But owing to the infernal noise of the rapid fire, during which the infantry had eyes only for the enemy, they saw and heard nothing of what was going on behind them, and the cavalry, if they had persisted in breaking through, would have had to ride down part of their own infantry, who were at that point ensconced in shelter trenches. So they had to wheel away and gallop to a flank before they charged. The impossibility of breaking out through infantry in action became yet more obvious, when one imagined the ground in rear of this infantry to be perpetually swept by the enemy's fire which had passed over them, for which the cavalry would have served as a species of butt, and when one realised that in rear of such a fighting line of infantry there would be a constant movement of ammunition carts, of wounded being carried to the rear, of dressing stations, etc., all of which the cavalry brigade would have had to ride down. If during the whole of the autumn manœuvres of that year the cavalry division of which I speak had learnt nothing more than this fact, that such a mass of cavalry (a brigade or a regiment) can efficiently assist fighting infantry in battle only on condition that they move round one of the flanks, so that the fire may produce its full effect before the cavalry close, then the latter would have obtained full recompense for having taken part in these exercises. But the infantry must also learn by such manœuvres what they are to do when such a charge is made by their own cavalry in their vicinity and within the sphere of their action. Who has not noticed, both at the manœuvres and in war,

that the infantry, as soon as their cavalry charge, wait and watch them quietly, as if some one else was doing their work and they could afford to be idle? But is not that moment, when our cavalry close and the enemy's fire is directed upon them, while our own infantry being masked cannot fire, just the most favourable opportunity possible for gaining ground at the command "Rise! Forward! Hurrah!" and for rushing to the front up to our own cavalry, in order to aid them and to hold the ground which they have captured? But how seldom this is done! How often have I at the manœuvres been obliged with this object to ride personally forward into the ranks of the infantry, and to be myself the first to shout out this word of command, in order to give to the combat some resemblance to a combined action of the two arms.

Such combined action must however by constant practice be made a mere matter of course, if it is ever to take place in war.

I have already fully explained how useful to infantry in war, and even during a battle, are the cavalry specially attached to divisions, how no company likes to make a reconnaissance towards a farm, etc., without being accompanied by a couple of troopers as orderlies and patrols, and how, even in the middle of a battle, troopers are sent in all directions to obtain rapid information with regard to the ground, etc. I could give several other examples: how even at the storming of a village (Le Bourget) mounted patrols were sent over the open country in front of the infantry, in order to see whether this or that part of the village was held by the enemy or not; and

how by the use of single scouts, who galloped boldly over open ground which was swept by the enemy's very heavy infantry fire, the fire of the artillery and of the skirmishers could be used in combination at the proper moment with the very best result. But to do this would be to carry owls to Athens. For no one among us has ever denied the necessity of attaching a cavalry regiment, as an integral part, to an army division, and there is no danger of our imitating the distribution which the French army used in 1870, when no divisional cavalry was given to the infantry divisions, but the whole of the cavalry of an army corps was collected into a brigade or division, which was placed directly under the General commanding the army.

Think of the matter how I may, I come always to the same conclusion. I would not alter anything in our present peace organisation for the cavalry. But I consider that it is most desirable that all the cavalry should annually take part, not only in the exercises with the other arms (field manœuvres and the exercises of detachments of all arms), but also in the manœuvres of organised cavalry divisions.

## LETTER XIX

### THE ACTION OF DISMOUNTED CAVALRY

I HAVE up to the present said hardly anything concerning one point in cavalry tactics, about which, even in the cavalry itself, very varying notions and opinions have been expressed, and with regard to which I have up till now met with most indistinct ideas. I refer to the action of dismounted cavalry.

Cavalry have been called upon, even when engaged with the enemy's cavalry, to dismount a reserve of a few squadrons, with the object of occupying some defile in rear. In the last war we saw dismounted cavalry take villages (defended, it is true, only by *gardes-mobiles* and *franc-tireurs*), and there is even an oil painting of such an exploit. This instance has been elevated into a principle, and we hear important cavalry authorities saying: "We must be self-sufficing, and must free ourselves from all dependence on the infantry." They even go so far as to practise the cavalry at their manœuvres in building bridges, in order to make them independent of the bridging troops. I once saw a sketch of a regulation for the instruction of the cavalry in dismounted action, according to which the cavalry were to undergo the whole of the training of the infantry in minor

tactics and field service (notoriously the most difficult of all); fortunately this draft never became a regulation.

According to the newspapers one of the most important of our neighbouring states has not only re-instituted dragoons as mounted infantry, but has made them the prevailing element in its cavalry. 'I found during my inspections some leaders of squadrons who, following the general tendency of the times, had practised dismounted action with especial zeal, and had borrowed the formations of the infantry regulations. When a part of the squadron had been dismounted for action, while the other half remained mounted, according to regulation, as a reserve, you saw a skirmishing line composed of dismounted hussars, followed by a dismounted support, and advancing at a run by rushes of one-half at a time, while the other half fired. It was most imposing! For the half-squadron consisted of hardly 30 carbines, while of these ten formed the support, so that each rush was made by ten hussars. It is scarcely possible to believe in the success of such an attack.

On the other hand, many old officers of cavalry suppressed this zeal for the instruction of cavalry in dismounted action (declining altogether to see it at inspections) and, like the cuirassier in *Wallenstein's Camp*, looked upon it with contempt as something unworthy of mounted troops. This dislike is not a mere prejudice. For a blow is given to the true spirit of cavalry, if a trooper once believes that he can fight without his horse. The close connection between horse and rider will thus be lessened, and the love of the man for his charger will be weakened.



The importance attributed in high places to the dismounted action of cavalry is proved by the fact that every cavalry soldier has been armed with a long-range carbine. But no rules have as yet been laid down as to the circumstances in which cavalry are to fight on foot. The regulations content themselves with stating the formations to be used, and say only a few words as to attack and defence. This stepmotherly treatment of dismounted action in the regulations leads to the belief that no great importance is attributed to this exceptional kind of fighting, but on the other hand, the silence which is preserved with regard to the conditions of its employment leaves a free field for the discussion of the subject.

Let us first consider the amount of strength which will be displayed by the cavalry in such dismounted action. A squadron will but very seldom commence a war with more than 60 files. As a rule it will possess a smaller strength of combatants. But let us say there are 60 files, and presume that every third man will be a horse-holder; there will then be at the most 80 carbines for the fight on foot. Taking for granted that a cavalry division of 6 regiments or 24 squadrons will have one regiment of cuirassiers, we may certainly suppose that the latter will remain mounted as a reserve. For even though the cuirassier regiment be armed with carbines, yet a cuirassier, with his long boots and his cuirass, crawling about on the ground, would be such a parody on the active infantry soldier, that one would be glad to give up any idea of his efficiency in a dismounted fight, unless the most absolute necessity compelled

him to make use of his firearm. In addition to the cuirassiers, about two squadrons of light cavalry must remain mounted for the purpose of reconnoitring, and thus of the division 18 squadrons at most (1440 men) can be employed in dismounted action. Now let us imagine these 1440 men used to carry out an attack on foot. In the first place, no carbine, however well it may be constructed, will shoot so far or so accurately as an infantry rifle, while, moreover, it is not possible to give so much time to the musketry instruction of the cavalry as to that of the infantry. The latter will thus always shoot farther and better than the former. From this we may without hesitation conclude that a weak infantry battalion, of from 700 to 800 rifles, in a good defensive position, will hold its own, even in fire, against the attack of the dismounted skirmishers of a whole cavalry division. Now comes the moment when these skirmishers are, according to para. 236 of the Regulations, to charge home. How are they to carry on their fight with cold steel? When officers commanding cavalry have asked me to lay down some system on which this might be carried out, I found myself very much puzzled; for up to this moment each man has held his carbine in his right hand, in order to fire with it, while his sword has been hooked up. If he now hooks up his carbine and draws his sword, the former, as it swings and hits his back, will hinder him as he runs, and at the same time is out of the way if it is necessary to fire at a very short range. Is he to throw away his carbine and get rid of it? That could never be allowed. The most natural thing for him to do,

when it comes to hand-to-hand fighting, would be to reverse his carbine and use the stock as a club. But such a thing as this cannot be laid down by regulation. Under all circumstances a cavalry soldier fighting on foot with the *arme blanche* plays but a poor part as compared to an infantry soldier who has a bayonet on his rifle.

Let us look at this question with regard to the possible equipment of cartridges. We cannot count upon more than 20 cartridges per man. It is true that the general regulations prescribe (para. 234, No. 5) that "care must be taken with respect to punctual supply of ammunition," but it gives no directions as to how this is to be done. Could the ammunition carts come up into the firing line during a musketry fight of this kind? Is not the supply of ammunition to an infantry firing line already an unsolved problem? Even in the case of the artillery is it not possible only with the greatest difficulty, and by an enormous amount of exertion? Now an infantry soldier carries 80 cartridges, and has yet to be most frugal of them during the introductory combat, in order that he may not, at the most decisive moment of all, suffer a check owing to his want of ammunition. How soon would the 20 cartridges of the cavalry be expended? Can we burden the cavalry soldier with more cartridges? No! for how and where is he to carry them? When we take all these circumstances into account, we shall still more clearly recognise the weakness of a fire-fight of dismounted cavalry; and I certainly am not saying too much when I declare, that 500 good infantry can oppose the dismounted troopers of

an entire cavalry division with every prospect of success.

If, therefore, a cavalry division finds itself opposed by a weak battalion of the enemy which is posted in a good position, it would be better for it to make use of the advantage which it possesses in the speed of its horses (*i.e.* in its nature as cavalry), and to quickly pass round the flank of the position, in order to fall upon the rear of the infantry, while the artillery of the division fires upon the enemy's front.

The facts that I have stated are sufficient to prove that cavalry cannot allow themselves to carry out, by means of a musketry fight, an energetic offensive which must entail heavy loss. Such an offensive would be advisable for them only in the case where a very weak or morally worthless body of infantry (armed crowds, *franc-tireurs*, etc.) stood in their road and endeavoured to forbid their further advance.

The conditions of dismounted action for cavalry on the defensive are far more favourable, especially when they have had sufficient time to find cover. They produce their best effect by deceiving the enemy and by gaining time. For an advancing foe, who receives a fire of small-arms from an occupied village or from a defile, cannot at once make up his mind whether he has infantry or dismounted cavalry in his front. The head of his column halts, and his march is stopped. He reconnoitres, comes to the conclusion that it is not advisable to rush on without consideration, makes dispositions for a turning movement, and extends into the order of attack. By the time that all this is done the cavalry will perhaps

have mounted and galloped off, and hours may elapse before the deceived enemy again resumes his order of march; hours which may have facilitated decisive action at some other point, or which will at least have much fatigued the advancing enemy. Or it may happen that the enemy does not discover the deception, and considers the position which the cavalry holds to be too good and too strongly occupied by infantry, and therefore falls back and gives up all idea of attacking. In that case the cavalry remain in possession of the important point. I may mention, as examples, the two French squadrons commanded by Lieutenant-Colonel Dulac, which stopped the 13th Division on the Kaninchenberg near Forbach, on the 6th of August 1870, and the dragoons of the Guard at Dieulouard, who, hiding like skirmishers in the vineyards, made the enemy's infantry, who had been brought up by rail to occupy this important defile, believe that our infantry had already seized it, with the result that they, without any serious attempt at attack, got into the train again and went off. If the cavalry are assisted by horse artillery the deception may be made yet more lasting and complete, as indeed was the case at Dieulouard.

But we can neither expect nor demand more than this from the action of dismounted cavalry.

It can, moreover, never make cavalry entirely independent. Cavalry can be made independent by it only when employed against detachments of the enemy's infantry who have quite lost all order, against unorganised but armed mobs, or against the ill-disposed inhabitants of a country. But cavalry when

on the defensive can by their dismounted action, and by deceiving the enemy, under certain circumstances retain far superior masses of the enemy long enough to prevent them from arriving in time at any decisive point, while they may, if sent on ahead at a rapid pace, obtain early possession of important points, with the object of holding them until their own infantry can come up and occupy them.

The exercises of cavalry in dismounted action must, therefore, be chiefly limited to a skilful occupation of localities and positions, and to practice on the ranges.

It would be very dangerous indeed to expect or to ask more from them. For if more were demanded from them in peace, if, for example, they were called upon to learn the whole duty of infantry in minor war, it would be necessary to employ in this training the greater part of the time allotted to drills and instruction. But every cavalry officer knows that the cavalry have now no time to spare, and that every officer commanding a squadron has to carefully divide and skilfully use the time allowed for exercises, day by day and hour by hour, if he desires to satisfactorily meet the demands which are made upon that arm in the present day. He knows also how physically tired every trooper is daily in time of peace, owing to the duty which he is now called upon to perform, and that it is impossible to make still greater demands upon his bodily strength, by working him at extensions into skirmishing lines, advancing by rushes in swarms, and all the other exercises which form part of the minor war of infantry. If such a training be demanded from the cavalry, they must give up some other portions of their exercises,

and the excellence of their instruction as cavalry must thus in some manner deteriorate. This is the special reason for the dislike which so many old cavalry officers feel for dismounted action, dislike so bitter that I have heard it described as "a silly joke and a dangerous folly."

But if more be demanded in war from dismounted cavalry than that which I have shown to be the limit of their efficiency in action, there will be great risk of their employment on secondary objects, and of a too lavish use of this valuable arm. Imagine a case where the 1440 dismounted troopers of a cavalry division are expected to storm a village, which is fully occupied by a well trained and resolute battalion of from 500 to 800 rifles. If the battalion fights skilfully and stoutly, one of two things will happen ; either the cavalry, after severe losses which may easily amount to the strength of an entire brigade, will arrive at the conclusion that they cannot drive out the battalion ; or fortune will favour their attack, but they will lose in the fire-fight, and yet more in the combat with the *arme blanche* which will follow it, so many of their troopers, that they will have little more left than the six squadrons which have remained mounted. Is the game worth the candle ? Certainly not.

It is still more dangerous to expect more from the cavalry than the nature of the arm will permit it to give when fighting on foot. For certain combinations may very probably be founded upon such expectations, but will, when these are not fulfilled, fall to pieces like a house founded on sand, and entail the loss of a campaign.

It shows an entire misapprehension of the nature of cavalry to require that they shall be self-sufficing and entirely independent. To think so is a mere Utopian fancy.

The infantry is, and will always be, "the army." Cavalry is, and will always be, merely an auxiliary arm to the infantry. Cavalry cannot attain to its highest and most valuable efficiency, or win its highest honour, unless it constantly remains convinced that it exists only for the infantry, and that it should work only for it ; and this whether as cavalry divisions under the direct command of the Commander-in-Chief, or as divisional cavalry, or as a patrol in close connection with a small infantry picquet. We must always therefore remember, when using cavalry, that it can never be entirely self-sufficing, but must invariably need a closer or more distant support from the infantry, as well as sooner or later its direct assistance ; it will otherwise be sacrificed without an object, while the infantry will find itself deprived of its most valuable aid.

We can therefore, in my opinion, quietly look on while our great neighbours make the whole or the greater part of their cavalry into mounted infantry. This new creation will, like all hybrids, be of little use, and will fail entirely to discharge the most essential duties of a good cavalry.



## LETTER XX

### CONCERNING THE POSTING OF HORSE ARTILLERY TO THE CAVALRY DIVISION

WHEN I finished my last letter, I thought that I had spoken about nearly everything that I could have to mention with regard to cavalry. But you notice that I have hardly said anything concerning the question of attaching horse artillery to the cavalry division. I omitted it because the subject of the use of horse artillery in combination with the cavalry division has more to do with a discussion concerning artillery. But if you wish to know my opinion with regard to the amount of horse artillery which should be attached to a cavalry division, I must continue to you my remarks upon cavalry.

In the last war the posting of horse artillery to the cavalry divisions was carried out on very varying principles. We find cavalry divisions of 24 squadrons with 18 guns (the Guard), cavalry divisions of 36 squadrons with 12 guns (the 5th), others of 24 squadrons with 12 guns (the 2d and 4th), one of 20 squadrons with 6 guns (the 6th), two of 16 squadrons with 6 guns (the 3d and 12th), and one of 24 squadrons with 6 guns (the 1st). Moreover, in the Baden, Wurttemberg, and Bavarian contingents there

were cavalry brigades which were not formed in divisions, and which each had 6 guns, but had no artillery permanently told off to them.

According to an old theory 3 or 4 guns of horse artillery ought to be attached to each 1000 troopers. This estimate has no practical foundation, and was settled only in accordance with the proportions which then existed.

The regulations leave this an open question, but take into consideration the possibility that a single battery of horse artillery might be attached to a cavalry division. This is shown by the words (para. 224, No. 2), "if more than one battery is told off to the division, etc."

In order to form an exact idea on this point, we must consider the action and the use of a cavalry division. In all the rules which they lay down concerning the employment of a cavalry division, the regulations take into account only one object of attack. The horse artillery must fire on this object before the charge takes place, and it will find sufficient time for this purpose, if it takes up a position as soon as the enemy is in sight; this will give it at least so much time as the cavalry division needs to deploy from the order of march and to form itself in three lines for attack. If, when this has been done, the moment for attack does not seem to have yet arrived, the horse artillery will have still more time to prepare the charge by its fire. When there is only one object of attack, it would appear that there can be but one target for the horse artillery of the cavalry division, since it ought not, as a rule, to allow itself to pay any attention to other things, as,

for example, to an engagement with the enemy's artillery. Thus para. 224, Nos. 3 and 4, of the Regulations speaks of the selection of but one position by the artillery.

This seems almost sufficient if only one battery of horse artillery is given to a cavalry division.

But the division does not always show itself at one point only. It often happens, especially when reconnoitring or when veiling their own army, that single brigades are widely detached on independent missions. It may thus come about that the battery would be only an incumbrance to a light cavalry brigade, and might impede its movements, if, for example, it was ordered merely to observe; in this case it might have to disperse altogether, and under certain circumstances to rapidly disappear; no battery would then be attached to it. Thus up to the 13th of August the Guard Corps sent out the dragoon brigade to the front without any artillery. But if it becomes necessary for a brigade to occupy and to hold a certain point, it must then have artillery. For example, the Guard Corps sent forward a battery of horse artillery to the dragoon brigade on the 13th of August, since it had to seize and to hold the important point Dieulouard with its bridge over the Moselle. It may also happen that each brigade of the cavalry division has a special task to fulfil, and has thus to move by a separate road (as was the case with the cavalry division of the Guard on the 16th and 17th of August); I think, however, that such an employment will be exceptional and must not be considered as normal, while I think it better to use one brigade on each of

two roads, and to keep the third in rear of the centre as a reserve. From what has been said above I consider it necessary to have as many batteries with the division as there are brigades, for I sincerely hope that no one will ever again suggest the breaking up of a battery and the employment of horse artillery by sections.

Again, if we go into the detail of the use of horse artillery in combination with cavalry, we shall find that it is most desirable to tell off more than one battery to a division. Imagine the situation of an officer commanding a battery, who finds himself attached with his battery alone for an entire campaign to a cavalry division. No body of troops requires so absolutely as the artillery the continual presence of its captain, whether it be on the march, in quarters, or in action. The many-sided character of the arm, including as it does, horses, men, carriages, guns, and ammunition, necessitates the continual supervision of an experienced leader, since the senior lieutenant is generally too young to have sufficient experience and trustworthiness in all these matters. Every one must have noticed how quickly disorder sets in, when the well-known and much-feared voice of the captain is no longer heard. Every one also knows by experience how the fire discipline falls off in a battery, and how the fire soon becomes an irregular, badly aimed, and uncontrollable *feu à volonté* (which it is impossible to correct, and which therefore has no effect) as soon as the men cease to receive decided corrections from the lips of their observant leader. This springs from no want of discipline, but from an intense desire to

assist the lieutenant who, in the opinion of the N.C. officers and the Nos. 1, has not had sufficient practice in observing fire ; they, therefore, correct their laying according to their own opinions, in spite of the word of command of the young officer, and thus puzzle him terribly, for he does not know what to trust to.

But though the officer commanding a battery is unwilling to leave his battery even for a second, yet in order that horse artillery may be properly used in combination with a cavalry division his place ought to be at the side of the officer commanding the division. Let us consider, for example, a division on the march. The officer commanding the division is informed by his patrols that they are in contact with the enemy ; he rides forward to some hill, looks around and makes up his mind. Is he now, while he is making his dispositions with regard to his brigades, to send his orders to the battery by a special galloper ? To do so would be to place a captain's command upon the same footing as that of a brigadier. This must, in the long run, lead to trouble, and could be done only as an exception. As a rule, then, the horse artillery will receive its orders too late, and will not produce its full effect. The commander of the artillery must, therefore, ride with the commander of the division ; if he does so he knows all that the latter knows, he hears his decision as to what is to be done as soon as it is made, and immediately leads his artillery to that point whence it can the most efficiently aid the attack ; and this even before any orders are given to the brigades. The position of the artillery will

generally be on the hill where the divisional commander stands for the purpose of reconnoitring.

The officer commanding a single battery attached to a cavalry division will thus have to be in two places at once, for he must never leave either his battery or the divisional commander. But if the artillery be of the strength of a brigade-division, then the working of that arm will be far easier, since even though the officer commanding rides with the General, yet he has an adjutant. He will send this adjutant to call up the artillery, but will remain himself near the divisional commander ; he will thus hear all special orders concerning the cavalry, and will be able as he stands upon the hill to acquaint himself with the position of the enemy, the character of the ground, the range, etc., and will so be in a position to at once inform the batteries as they arrive of everything which it is necessary that they should know. I hope that no one will raise an objection to this on the ground that, on the one hand, the officer commanding the brigade-division must equally be in two places at once, since he is needed both with his batteries and with the divisional commander, and on the other that the officer commanding a battery which is attached to a cavalry brigade is in the same position as has been above described, and will equally require a colonel over him. For it is much easier for the officer commanding a brigade-division to leave his troops than it is for the officer commanding a battery. Even in peace at the manœuvres he very rarely directs his entire unit by word of command or by trumpet call. In war he always *sends* his orders. He even sends directions regarding the fire by

galloppers. The regulations certainly lay down that he is to join his batteries in order to direct the fire. Even if he does so he will seldom be far from the divisional commander, since the height giving a good view, upon which the batteries will come into action, will generally be the place from which also the General will send his orders to his cavalry brigades. Thus the artillery commander will not be separated from the latter until he personally leads forward his third line to the charge. It is in that case most essential that there should be an officer commanding artillery present, whose attention has not been absorbed during the whole time that the guns have been in action with the details of the direction of the fire, but who has had time to learn the intentions of the divisional commander, before the latter rushed on with his third line into the *mêlée*.

The question is entirely different with regard to a battery which has been attached to a cavalry brigade, for the connection between these units is not a matter of organisation, or permanent ; it is rather a temporary and exceptional link. Under such exceptional circumstances great difficulties will always arise, which cannot be met by any arrangements of organisation.

If we consider the case of a cavalry division, which has to act independently some days' march in front of the army, we shall recognise that it must have a strong and efficient artillery, if it is to force its way on in all directions. Three batteries will be quite the minimum which it will require, since, should it meet with cavalry of the enemy who can bring a

superior force of horse artillery into action, it will not be able to advance anywhere.

Reasons connected with internal administration have also much force against breaking up the brigade-division of artillery. Owing to new arrangements in organisation the system of command in the artillery is based, since the last war, more on the brigade-division than it was formerly, more especially since each brigade-division has been provided with a paymaster and with an administrative staff. The brigade-division is the unit for mobilisation, and has its own treasure chest. A battery which is torn away from its brigade-division for the entire duration of a war is thus placed in a position as uncomfortable as would be that of a company or a squadron which was separated from its regiment for the whole of a campaign. Moreover, the divisional commander will hand over to his artillery the entire charge of the supply of ammunition, even of that for the small-arms. Is then the officer commanding a battery to be responsible, without a paymaster, for all matters connected with the pay and the care of his troops; is he to carry on the whole of the correspondence with respect to the supply of ammunition, horses, men, equipment, and clothing; and all this without the necessary circulars and general orders, and without any staff of clerks or skilled accountants? He will have no office, just as the brigade-division had none before it received a paymaster, and may thus, since the control does and must work among us with the greatest exactness, be simply ruined by the non-observance of regulations of which he knows nothing. The anxiety which will spring from this fact will demand the



whole of his time in quarters and on the days of rest, and will take off his attention from his battery. No one ever thinks of taking a company or a squadron, in the infantry or cavalry, from its regiment at the moment of mobilisation. Most infantry divisions pass as a whole from the peace to the war footing ; a similar organisation is demanded for the cavalry divisions ; and yet the artillery is to be broken up into its smallest units ! We need not wonder that the artillery is not always correctly employed, when we see a battery taken away from its brigade-division from the moment of mobilisation up to the end of the war.

But I think the system of granting honours is yet more important ; and this is opposed to the breaking up of the brigade-division. I refer to the recognition of services performed before the enemy, by means of orders and marks of honour, and by the reports of distinguished conduct which are made after the war to the officers who command the troops in peace. There are certainly some soldiers of such philosophical minds, that they demand that officers and soldiers shall do their work and risk their lives without any consideration of any other reward than the joyous consciousness of having done their duty. But in no nation will the majority of soldiers be able to attain to this point of absolutely pure zeal for duty. With us, since the State is not wealthy enough to reward the soldier with money and goods for having risked his life in the service of his King and Fatherland, the soldier fights for honour only, and of this there must be some outward signs, such as orders and decorations. How is a single battery, if detached as above men-

tioned, to receive any decorations, since it has no senior commanding officer to represent its claims? Sometimes it does very well, even better than its comrades in the cavalry; but sometimes it gets nothing at all. But if the batteries have a representative who is always near the divisional commander and looks after their interest, it is his business to see that their services are recognised; while if the worst comes to the worst he can always appeal to the superior officers of his own arm to obtain for them anything in reason.

I may sum up my opinion with the regard to the posting of horse artillery to the cavalry divisions, by saying that I think that a complete brigade-division of horse artillery ought to be attached to every independent cavalry division, which is intended to work under the direct orders of the commander of the army, and to be released from all control of any corps commander; and that this brigade-division should be formed exactly as it, at the mobilisation, passes from peace to war footing, that is to say, in our case of three batteries, no matter whether the cavalry division consists of 20, 24, or 36 squadrons, or whether it is divided into two or three brigades.

Very weak cavalry divisions of only 16 squadrons (XII. Army Corps) will certainly not be made independent of the corps command. In this case it would be best not to give them any horse artillery as a part of their organisation, but only in case of need or under special circumstances to hand over a battery or a whole brigade-division from the corps artillery, for some action or for some one day, to the cavalry division.

This mode of proceeding has also the great advantage that the horse artillery, when thus employed, are

practically of double use. The batteries remain, as a rule, with the corps artillery. If the cavalry division is sent forward, they are attached to it. If a battle takes place, during which the cavalry division is held in reserve, then the horse artillery becomes again a part of the corps artillery, and considerably augments its fire.

The horse artillery of the Guard Corps was thus employed in 1870. The *ordre de bataille* originally told it off to the cavalry division. But the corps commander kept it at first with the corps artillery. When the cavalry division was called upon to act at a distance, the brigade-division of horse artillery was attached to it ; but as soon as a battle took place, we saw the whole of this brigade-division fighting in the line of the corps artillery, which was so augmented by 7 batteries or 42 guns, and thus, at St. Privat, Sedan, and Le Bourget, swayed the balance of victory.

For a cavalry division which takes part in a great battle does not require any horse artillery. It is held at first in reserve. If it is called upon to attack, it is obliged to make use of an opportunity of charging broken troops of the enemy. There is thus no need to break up its enemy with artillery fire, and there is besides no time to do so. The horse artillery of the cavalry division will, therefore, act as an idle spectator, unless it has already taken its share with the other batteries in breaking up the enemy.

I can, moreover, find nothing to say in favour of telling off only two horse artillery batteries under a colonel to a cavalry division. These two batteries must always have left the third one somewhere in rear, and this will have to play the miserable part of

a mere appendage, and will be a sheep without a shepherd.

If then a cavalry division is very weak, say only 20 squadrons, like the 6th in 1870, it still seems better to tell off to it a whole brigade-division of three batteries, and thus to endow it somewhat too richly, rather than to break up the familiar unit of command, and thus to injure the efficiency of the troops.

# INDEX

- ACHEN, 15.  
 Alençon, 104.  
 Alvensleben, General von, 24.  
 Amanvillers, 37, 38, 39, 75.  
 Amiens, 107.  
 Ammunition for cavalry, necessity  
     of, 93, 94, 239.  
 Andon, brook, 52.  
 Argentan, 105.  
 Argonne, forests of the, 114.  
 Artenay, fight at, 91, 102.  
 Artillery, Corps, 13.  
     Reserve, 13.  
 Assweiler, 14.  
 Auboué, 39.  
 Auerswald, Colonel von, 28.  
 Auerswald's brigade, 89.  
  
 BANTHÉVILLE, village, 52.  
 Bapaume, 82.  
 Bar le Duc, 114.  
 Bazaine, \*Marshal, 16, 23, 33, 34,  
     \*41, 52, 91.  
 Bazaine's *Episodes*, 20.  
 Bazoches les Gallerandes, 101.  
 Beaumont, fight at, 42, 43, 52.  
     surprise of enemy at, 54.  
 Beauvais, 46.  
 Benko's brigade, 61.  
 Berlin, 73, 142, 166, 167, 168,  
     219.  
 Bistritz, river, 87, 88.  
 Bixio, General, 59, 60.  
 Bliesscastel, 14.  
 Blois, 46, 91, 92, 102, 104, 108.  
 Blücher's stratagem, 200, 201.  
 Blumenau, battle, 201.  
 Bober, river, 145.  
 Bois de la Cusse, 37, 38.  
 Bois de St. Arnould, 27.  
 Boulton aux Bois, 53.  
 Bourbaki, General, 113.  
 Bourges, 93, 102, 103, 108, 109.  
 Bredow's brigade, 84, 88.  
     charge of, 25, 26, 27, 31, 68,  
     89.  
 Breslau, 145.  
 Bruville, 28, 29.  
 Bujanowicz's brigade, 59.  
 Buzancy, cavalry fight at, 42.  
  
 CAEN, 109.  
 Canrobert, Marshal, 24.  
 Carignan, 43.  
 Cavalry action against infantry, 24.  
     against advancing troops, 15.  
     American, 20, 47, 98, 110, 113,  
     114.  
     ammunition for, 239.  
     at Königgrätz, 62.  
     Austrian Light, 12.  
     auxiliary arm to infantry, 244.  
 Cavalry and infantry at manoeuvres,  
     225, 226, 227, 228, 229, 231,  
     233, 234.  
     must act in concert, 5, 9, 95,  
     221, 223.  
     regiments, friendship between, 2.  
 Cavalry, covered the rear of siege at  
     Paris, 46.  
     deciding an indecisive battle, 56.  
     decisive movements of, 19, 20.  
     destruction of railways, etc., by,  
     110, 120.  
     difficulty of training, 7, 8.  
     dismounted, 235.

- Cavalry, dismounted, ineffectual in fight, 237, 238, 239, 243.  
 dismounted, manœuvres of, 230.  
 dismounted, use of, 240, 241, 242.  
 distance from enemy if halted out of action, 71.  
 drill by signals, 78, 175, 176, 177.  
 drills, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 180, 181.  
 division, action and use of, 246, 247.  
 Divisions, why so named, 13.  
 divisions in training recruits, former and present, 161, 162.  
 duels, 29, 30, 62, 63, 97.  
 effect of night attack by, 32, 33.  
 effect of wider zone of fire on, 70, 87.  
 exercises, 164, 166.  
 field practice, 183, 184.  
 field practice, new method, 185, 186, 187.  
 first sent forward in 1870, 13, 14, 15.  
 flank attacks in peace, 202, 203, 204, 205.  
 flank attacks in war, 198, 199, 200, 202, 203, 204, 205.  
 former demands on, 123, 124, 125.  
 French, use of, 95.  
 French practice forming order of battle during a march, 144.  
 German, 1.  
 German, should learn to form from order of march to order of battle, 143, 144.  
 great charges of, 25, 27, 28.  
 harassing enemy, 53, 54, 56.  
 heavy and light, 222.  
 horse artillery for, 245, 247, 248, 249, 250, 251, 252.  
 horses, 128, 129, 147, 148, 168.  
 horses, training, 125, 126, 127, 128, 150, 151, 152, 153, 154, 159, 170, 171.  
 how it cleared the way for the infantry in 1870, 16, 17.
- Cavalry, how it covered infantry, 35.  
 how to march, 141, 142.  
 instruction of, 150.  
 invested Paris two days before the infantry could arrive, 45, 46.  
 its action on 16th August, 22, 23, 25, 28.  
 its best position in battle for a decisive charge, 76, 77, 78, 80, 82, 83.  
 its organisation in peace, 209, 210, 212, 214, 215, 217, 218.  
 its part in battle, 22, 24, 27, 29, 30, 47.  
 its superiority against hastily raised militia, 46.  
 its uses in future, 85, 86, 87, 90, 91, 96.  
 its use in impeding the enemy till the other arms can come up, 43.  
 in war of 1870-71, 5, 6, 7, 11, 35, 37, 47, 55, 56, 57.  
 large amount of German, in France in 1870, 109.  
 leader, duties of the, 130, 131.  
 leader in war, sketch of, 207, 208.  
 manœuvres, 143.  
 manœuvres, officers' patrols at, 188, 189.  
*mêlée* in war, 197.  
 mobilisation of, 218, 219, 220.  
 modern demands on, 123, 124, 125, 126, 127, 134, 136, 137, 138.  
 necessity of, 4, 10.  
 new regulations, 157, 160, 162, 163, 194.  
 now fails against infantry, 64, 65.  
 number in proportion to other arms, 221.  
 objections wrongly made to, 3.  
 officer, duties of, 125, 126, 127, 128, 129, 130, 134, 137.  
 officers, heavy duties of, 7.  
 on the defensive, 83, 84.

- Cavalry patrols, infantry aided greatly by, 49, 50, 51, 54, 55, 56.  
 patrols, instruction of, 138, 139.  
 position of divisional commander different in peace and war, 205, 206.  
 Prussian against French, 29.  
 pursuit by, 6, 7, 56.  
 raids of American, 47, 98, 110, 113, 114.  
 raids, baggage train required for, 106, 107.  
 raids examined, 116, 117, 118, 119, 120, 121, 122.  
 raids, not employed in war of 1870-71, 98, 101, 110.  
 raids, suggested, 103, 104, 107.  
 raids unsuited to the Germans in 1870, 113, 114.  
 raids, when suitable, 114, 115.  
 reason why less used in battle, 58.  
 recruits, instruction of, 156, 157, 161.  
 recruits trained to ride, 154, 156, 158, 159, 160, 170.  
 recruits, want of gymnastics for, 155, 156.  
 regiments, number of, in each army corps, 211.  
 regiments in manoeuvres, 194, 195, 196.  
 regulations, new, 8, 157, 160, 162, 163, 194.  
 rendezvous of, 140.  
 "Reserve," 12, 13.  
 scouts two days in advance, 35, 40, 41, 45, 55, 93.  
 should advance under cover of depressions in the ground where possible, 73, 74, 75.  
 should attack from flank, 68, 75, 76.  
 should be practised in divisions, 220.  
 should not be more than two or three days' march ahead of infantry, 93, 94, 95.  
 should not mask infantry fire, 67, 68.
- Cavalry, single horsemen escaping notice of enemy, 79, 80.  
 small divisions of, 254.  
 soldier, cost of, 3.  
 strength of squadron of, 237.  
 squadrons, direct charges of, 177, 178.  
 squadrons, how to charge with, 179, 180, 197, 198.  
 squadrons, how to inspect, 173, 174, 175.  
 swarming round enemy on march, 42, 43, 49, 53, 56.  
 use of, more frequent formerly, 5.  
 useless against intact infantry, 67, 89.  
 valuable service as patrols for infantry at siege of Paris, 44.  
 what limits the number of, 10.
- Châlons, 17, 91, 94.  
 camp at, 40.  
 forced marches on, 139.
- Chartres, 46, 102, 108.  
 Châteaudun, 102, 108.  
 Châteauroux, 103.  
 Chevilly, 101.  
 Chlum, 74.  
 Clausewitz's opinions on war, 56.  
 Clérambault, General, 29, 30.  
 Colombey-Nouilly, 18.  
 Compiègne, 46.  
 Côte d'Or, mount, 113.  
 Coulmiers, battle, 91, 92, 109.  
 partial defeat at, 57.  
 Custozza, battle, 67.  
 Austrian cavalry at, 59, 60, 61.
- DE FAILLY's corps, 54.  
 De France, General, 29.  
 Dieulouard, 15, 18.  
 German dragoons at, 241, 247.
- Dijon, 114.  
 Doncourt, 37.  
 Dreux, 46, 95.  
 Dreux-Chartres, 104.  
 Dulac's squadrons of cavalry, 241.  
 Dun, 41, 52.
- ELBE, river, 88.  
 Epte, river, 95, 107.

- Equitation, new instruction in, 8.  
 Etain, 36.  
 Etrepagny, 46.  
     fight at, 107.  
 Evreux, 46.  
  
 FENILE, 61.  
 Fleigneux, 66.  
 Fontenoy, surprise attack by French  
     at, 114.  
 Forbach, 241.  
 Forti's brigade, 61.  
 Frederic Charles, Prince, 3, 31.  
 Frederic the Great, 212.  
 French forces do not make early  
     starts, 32.  
  
 GALLIFERT'S cavalry, 66.  
 Gambetta, 100.  
 Gien, 102, 103.  
 Gitschin, battle, 64.  
 Goeben, General, 189.  
 Goltz's *Rosbach and Jena*, 212.  
 Gondrecourt, 40.  
 Gonesse, 45.  
 Görze-Thiaucourt, defile, 34.  
 Gravelotte, 38.  
     battle, 75.  
 Gröben, Count, hussars under, 36.  
 Gross-Görschen, Blücher's cavalry  
     movement at, 32.  
 Gross Rederchingen, 15.  
 Grüter's brigade, 31.  
 Guben, 145.  
  
 HABONVILLE, 37.  
 Hagenau, 13.  
 Hallue, river, 82.  
 Haynau, 6, 12, 146, 147.  
 "Heurichs," the, 2.  
 Hohenfriedberg, 6, 23.  
     battle, 59.  
 Homburg, 14, 219.  
 Höpfner, 18.  
 Horenowes, 62, 64.  
 Horse artillery brigades should not  
     be divided, 252, 253, 254,  
     255, 256.  
     at Le Bourget, 255.  
     at St. Privat, 255.  
     at Sedan, 255.  
  
 Horse artillery, duties of captain of,  
     248, 249, 250, 251.  
     position of officer in war, 249,  
     250, 251.  
 Hubertsburg, peace of, 212.  
 Humbert, General, 59, 60.  
 Hundelaincourt, 40.  
 Hymmen, General von, stratagem  
     by, 201.  
  
 ILLY, 66.  
 Infantry enabled to go into canton-  
     ment owing to cavalry scouts,  
     52, 53.  
     enabled to march quietly owing  
     to cavalry patrols in advance,  
     49, 54, 55, 56.  
     fire, range of, 71.  
     marches, great length of, 50.  
     principal part of the army, 9, 244.  
 Issoudun, 103.  
 Italian Condottieri, 3.  
  
 JARNY, 19.  
  
 KAISERSLAUTERN, 219.  
 Kaninchenberg, hill, 241.  
 Katzler, General, 12.  
 Königgrätz, battle, 62, 63, 74, 85,  
     87.  
     cavalry at, 84, 87.  
     skirmishers captured artillery at,  
     74.  
 Kottbus, 145.  
 Kraft, Prince, cavalry divisional  
     manœuvres by, 73.  
     cavalry drills by, 168, 171, 172,  
     177.  
     cavalry manœuvres by, 145, 146,  
     147, 228.  
     his escape from skirmishing line  
     of enemy, 79.  
     his knowledge of cavalry, 1.  
     his manœuvres of combined  
     cavalry and infantry, 233.  
     his method of marching artillery,  
     142, 143, 144.  
 Krappitz, 145, 147, 149.  
  
 LA BEAUCE, 113.  
 La Besace, 53.



- La Fère, 107.  
 Langenhof, battle, 64, 87.  
 Laon, 6.  
     night attack by cavalry at, 32.  
 La Vendée, suited for people's war, 106, 113.  
 Le Bourget, 255.  
     village, 83, 233.  
 Legrand, General, 29.  
 Le Mans, battle, 82, 104, 109.  
 Les Andelys, 46.  
 Leuthen, 6, 23, 89, 92.  
 Liberation, War of, 2, 12, 115.  
 Lieberwolkwitz, 6.  
 Liegnitz, 145, 146, 147.  
 Lisaine, river, 82, 84.  
 Lissa, 145, 146.  
 Loigny, 6.  
 Loire, river, 103, 108.  
     army of the, 3.  
     campaigns, the, 82, 98.  
 Löwen, 145.  
 Lyncker's detachment, 23.  
 MACMAHON, Marshal, 40, 41, 43, 52, 55, 91, 189.  
 Mannheim, 219.  
 Manteuffel's corps, 113.  
 Marchénoir, 91, 92.  
     forest of, 104, 108.  
 Marmont's corps, 32.  
 Mars-la-Tour, 5, 19, 28, 29, 31, 84, 88, 89.  
 Maslowed, 74.  
 Ménil la Horgne, 40.  
 Metz, 15, 16, 17, 19, 21, 34, 36, 41, 42, 75, 83, 109, 110.  
 Meuse, river, 20, 35, 40, 41, 91, 92, 94.  
 Mezières, 40.  
 Michelau, 145.  
*Militär-Wochenblatt*, 30, 93, 98, 188.  
 Mongabia, 61, 67.  
 Montaigu, General, 29.  
 Monte Cricol, 61.  
 Monte Croce, 60.  
 Monte Torre, 60.  
 Montmédy, fortress of, 45, 50, 110.  
 Mont Valérien, 83.  
 Moranville, 15.  
 Moselle, river, 15, 16, 17, 18, 19, 20, 35, 40, 247.  
     wide valley of the, 16.  
 NANCY, 15, 16, 17, 105, 110.  
 Napoleon I., 12, 112.  
     III., 4, 16.  
 Nedelist, 74.  
 Neisse, river, 145.  
 Nogent le Rotrou, 104.  
 Noisseville, 83.  
 Normandy, 95, 107.  
 ODER, bridged by Ulans, 121.  
 Orleans, 46, 92, 102, 104, 108.  
     capture of, 91, 102.  
     fight at, 82, 90, 91.  
     forest of, 92, 101, 102.  
 Oron, 15.  
 PAPE, General von, 80.  
 Paris, 45, 102.  
     siege of, 50, 54, 83, 94, 101, 104, 107, 108, 109.  
     siege of, cavalry scouting in rear of, 46.  
 Patrols, officers', in manœuvres, 192, 225.  
     officers', in war, 189, 191.  
 Péronne, 107.  
 Pierremont, 53.  
 Piret's brigade, 61.  
 Pisa's brigade, 61.  
 Pistoja's brigade, 61.  
 Pithiviers, 101.  
 Point du Jour, 38, 39.  
 Pont à Mousson, 17, 18.  
 Poupry, fight at, 82, 84.  
 Poysdorff, 142.  
 Prague, 142.  
 Pulz's brigade, 59.  
 "Putting out of action," 229, 230.  
 Puxieux, 19.  
 RADOWITZ, General von, 144.  
 Raids, cavalry, American, 20, 47, 98, 110, 113, 114.  
     baggage train required for, 106, 107.  
     examined, 116, 117, 118, 119, 120, 121, 122.

- Raids, cavalry, suggested specimens  
 of, 103, 104, 107.  
 when suitable, 114, 115.  
 Rambouillet, 95.  
 Rechicourt, 41.  
 Reconnaissance, value of, 11.  
 Reichshofen, 13.  
 Rethel, 114.  
 Reyher, General von, 53.  
 Rezonville, 19, 26, 32.  
 Rheims, 41.  
 Rhine, river, 50, 54.  
 Romagne, village, 52.  
 Rossbach, battle, 5, 6, 23, 59, 89.  
 Rouen, 46.
- SAARGEMÜND, capitulation of, to  
 four hussars under a lieutenant, 14.  
 St. Ail, village, 37, 38.  
 St. Menéhould, 114.  
 St. Mihiel, 35.  
 St. Privat, battle, 38, 39, 50, 52,  
 94, 255.  
 action of cavalry after, 39, 40.  
 French cavalry mistakes at, 75.  
 St. Privat la Montagne, 37.  
 St. Quentin, 82.  
 battle, 189.  
 Ste. Marie aux Chênes, 37, 38.  
 Salbris, 46, 93.  
 Sauer, river, 13, 14.  
 Sauldre, river, 91, 93, 102, 103.  
 Schmidt, General von, 194, 199.  
 on horse training, 151, 152.  
 Schmidt's brigade, 31.  
 Sedan, 5, 40, 44, 45, 50, 52, 54, 63,  
 79, 95, 101, 102, 109, 255.  
 failure of Prussian cavalry charge  
 at, 66, 67.  
 French cavalry destroyed at, 66.  
 Seine, river, 45, 109.  
 Seven Years' War, 5, 12.  
 Seydlitz, General, 78, 88, 89, 131,  
 212.  
 Shrapnel fire, range of, 70.  
 Silesia, cavalry sweeping, 92.  
 Upper, 92, 168.  
 Silesian campaigns, the three, 5.  
 wars, first and second, 12.  
 Soissons, 107.  
 Sologne, 103.
- Spicheren, battle, 14, 16, 17.  
 Sprottau, 145.  
 Square formation, no longer needed  
 against cavalry, 65.  
 Stains, 45.  
 Stenay, 42.  
 Suzemont, 19.  
 Swip Wald, forest, 62.
- TANN, General von der, 92, 102,  
 103, 104, 108.  
 Tempelhof Plain, 72.  
 Thiaucourt, 19.  
 Thionville, cutting of railway by  
 cavalry, 110.  
 Thoury, 101.  
 Toul, 19.  
 Touraine, 113.  
 Tours, 103, 104.  
 Treveray, 40.  
 Trochu, General, on panics, 131,  
 132, 133.  
 Tronville, 29.  
 copses, 27, 28.  
 Trotha, Captain, 19.  
*Two Years in the Saddle*, by H. von  
 Borcke, 98.
- ULAN, the Prussian, 13.  
 Unger, General von, 189.
- VENDÔME, 46, 104.  
 Verdun, 21, 36, 40.  
 Verdy's *The Cavalry Division in  
 Conjunction with an Army*,  
 190.  
 Versailles, 109.  
 Vienna, 142.  
 Vierzon, 93, 103.  
 Villafranca, 60, 67.  
 Vionville, 25, 27, 30, 32, 33, 64, 65,  
 68, 81, 84, 88, 89.  
 charge of French cavalry at, 65,  
 66, 67.  
 Vosges, defiles of the, 17.  
 Vouziers, 42, 52.
- WAR, fatal effect of surprise in, 4.  
 War of Liberation, 2, 12, 115.  
 of 1870, abnormal points in,  
 81, 95.

*Printed by R. & R. CLARK, Edinburgh.*

- |  |  |
|--|--|
| War of 1870, cavalry charges in, 82.               | ing its own infantry and artillery fire, 65, 68. |
| Webenheim, 14.                                     | Wsestar, 63.                                     |
| Wechmar, Baron von, 68.                            | Wrangel, General, 123, 141, 213.                 |
| Weimar's brigade, 61.                              |  |
| Weistriz, river, 145.                              | XONVILLE, 19.                                    |
| Werder's campaign, 82.                             |  |
| Wörth, battle, 13, 14, 16, 17, 64, 65, 90, 91, 92. | ZIEGLER, Lieutenant von, 42.                     |
| cavalry saves the enemy by mask-                   | Zorndorf, battle, 88, 89.                        |

**FOR CONSULTATION  
ONLY**

THE END

**OLD COLLECTION**

not to be taken out

357

Call No. ING

Accession No.

13634

Title

Letters on Cavalry.

Author

Ingelfingen. P. K. Z. H

FOR CONSULTATION  
ONLY

CKd  
92

11/8/02